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The June *Review*

Making comparisons is the medium of exchange of economic analysis. Is the rate of inflation higher today than it was yesterday? Are wages higher for white-collar or blue-collar occupations? Is unemployment more or less of a problem in one area compared to another?

In the case of unemployment, comparisons across areas of a single Nation, such as the United States, are facilitated by the existence of a common set of concepts and definitions of employment and unemployment and by a consistent system of estimating data that conform to those definitions. In the case of international comparisons of unemployment, in contrast, the first step must be to carefully study the concepts, definitions, and methods used to calculate the data. Every country's statistical service may have a different analytical focus, and, as Constance Sorrentino points out in the lead article, "No single definition can possibly satisfy all analytical purposes." Sorrentino's article goes on to harmonize, to the extent possible, the unemployment statistics of a wide range of industrialized economies. At the end of the exercise, her summary of the data still indicates that recent unemployment rates in the United States are lower than those in Europe and Canada, whether looked at using U.S., Canadian, or European concepts and definitions.

Stephen A. Wandner and Andrew Stettner investigate the decline in the unemployment insurance recipiency rate—the number of persons receiving unemployment insurance benefits divided by the number of persons counted as unemployed in the Current Population Survey. From rates averaging 49 percent in the 1950s, recipiency fell to 28.5 percent in 1984 before stabilizing in the low-to-mid 30-percent range in the early 1990s. Wandner and Stettner find that more than half of all unemployed workers do not file for unemployment benefits, either because they think they are not eligible or because they are optimistic about quickly finding new work.

Thomas M. Beers analyzes the most recent data on flexible schedules and working shifts other than a "regular" day shift. As of 1997, just over a quarter of all full-time workers reported some degree of flexibility in their work schedules. This represents a more-than-doubling of the share of workers reporting flexible scheduling in 1985. The proportion of workers working on alternative shifts, conversely, changed very little over the 12-year period, remaining at about 1 worker in 6.

Half of students are in labor force

More than half of America's 16- to 24-year-olds were enrolled in school in October 1999. About 9 million were in high school and 9.4 million were in college. Overall, the labor force participation rate for 16- to 24-year-olds enrolled in college was 58.5 percent. Among high school students, 41.2 percent were in the labor force. The labor force participation rate among all youths attending school was 50.1 percent. Find additional information in "College Enrollment and Work Activity of 1999 High School Graduates," news release USDL 00–136.

Productivity up in most industries

In 1998, labor productivity, as measured by output per hour, increased in 80 percent of the service-producing and mining industries analyzed by the Bureau of Labor Statistics. Output growth was recorded by 82 percent of the industries, while hours of labor grew in 54 percent of the industries. Nearly half of the industries registering productivity growth also posted declines in unit labor costs.

In 1997, the most recent year for which output data are available for manufacturing, output per hour increased in 74 percent of that sector's industries. Output rose in 77 percent of manufacturing industries, while hours of labor input rose in 63 percent. Unit labor costs declined in 58 of the 120 industries covered in the manufacturing sector.

Additional information is available from "Productivity and Costs: Service-Producing and Mining Industries, 1987–98" news release USDL 00–156, and "Productivity and Costs: Manufacturing Industries, 1987–97," news release USDL 00–155.

Pay and benefits in 1999

In March 1999, employer costs for benefits for civilian workers averaged $5.58 per hour worked. Wages and salaries were $14.72 and accounted for 72.5 percent of compensation costs. Benefits accounted for the remaining 27.5 percent.

Legally required benefits, such as Social Security and unemployment insurance, averaged $1.65 per hour, 8.1 percent of total compensation. Such benefits were the largest nonwage compensation cost. Paid leave, with an average cost of $1.34 per hour worked, was the next largest and accounted for 6.6 percent of total compensation. Following leave were insurance ($1.29 or 6.4 percent), retirement and savings benefits (76 cents or 3.7 percent), and supplemental pay (51 cents or 2.5 percent). Get more information on compensation costs from *Employer Costs for Employee Compensation, 1986–99*, BLS Bulletin 2526. □

We are interested in your feedback on this column. Write to: Executive Editor, Bureau of Labor Statistics, Washington, DC 20212, or e-mail MLR@bls.gov

International unemployment rates: how comparable are they?

Adjusted to U.S. concepts, the Canadian unemployment rate is reduced by 1 percentage point; effects of adjustments on European unemployment rates are smaller

Constance Sorrentino

Comparative unemployment rates are used frequently in international analyses of labor markets and are cited often in the press. In the United States, the comparative levels are considered to be an important measure of U.S. economic performance relative to that of other developed countries. Comparative unemployment rates also provide a springboard for investigating the economic, institutional, and social factors that influence cross-country differences in joblessness.

The Bureau of Labor Statistics (BLS, the Bureau) has adjusted foreign unemployment rates to U.S. concepts since the early 1960s. Three other organizations—the Organization for Economic Cooperation and Development (OECD), the International Labor Office (ILO), and the Statistical Office of the European Communities (Eurostat)—also adjust national data on unemployment to a common conceptual basis. The resulting "standardized" or "harmonized" rates are intended to provide a better basis for international comparison than the national figures on unemployment offer.

The standardized rates, as currently published by the three organizations that make comparisons outside of Europe (BLS, OECD, and ILO), all show a similar result: a significant gap in unemployment rates between the United States, on the one hand, and Canada and Europe, on the other. In 1998, for example, when the U.S. unemployment rate was 4.5 percent, Canada's rate was 8.3 percent, and the rate for the European Union was even higher, at 9.9 percent.[1] It is of interest to find out how much of this gap is attributable to measurement differences that may not have been accounted for. If the gap is due mainly to conceptual differences, then there is no reason to study why some countries appear to be doing better than others at keeping unemployment low.[2]

All of the comparative programs have noted that some differences remain for which adjustments are not made, either because they are believed to be too small to matter or because there is no basis upon which to make regular adjustments. Recent evidence, however, suggests that it might be useful to revisit this issue. For example, in 1998, a Statistics Canada study used unpublished tabulations to reveal surprisingly significant differences between U.S. and Canadian measures of unemployment, owing to different implementations of similar concepts. In particular, although both countries require a person to be available for work and to have conducted a job search in order for that person to be classified as unemployed, the requirements are interpreted in different ways. The main difference, in terms of impact, is the treatment of so-called passive jobseekers— persons who conduct their search for work merely by reading newspaper ads. Such individuals are included in the unemployed in Canada, but are

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excluded therefrom in the United States. The impact of this difference inched upward from a very small level in the 1980s to a significant level in the 1990s. The overall impact of making all the adjustments was to lower the Canadian unemployment rate by a little less than 1 percentage point. Although this did not mean that the Canadian unemployment rate fell below the U.S. rate, it reduced the differential between the respective rates by one-fifth.

The BLS comparisons program covers Australia, Canada, Japan, and six European countries: France, Germany, Italy, the Netherlands, Sweden, and the United Kingdom.[3] The result of the Canadian study has inspired this article's investigation of the comparisons of the United States with Europe. A later phase of the project will extend the work to Japan and Australia.[4]

The investigation begins with a discussion of the labor force definitions recommended by the ILO and the varying interpretations of these guidelines in the U.S., Canadian, and European labor force surveys. Measurement differences are sorted out and classified according to the direction of their impact. The size of the impact of these differences is then assessed, on the basis of the Canadian study and published and unpublished data for the European Union countries provided by Eurostat.

Next, adjustments of U.S. unemployment rates to European and Canadian concepts are presented to see if this reverse comparison arrives at different results. Then, limitations of the study are discussed, and the article concludes by setting out and evaluating some implications of the results for the BLS comparative series.

Although some references are made to the other three international comparisons programs, the article focuses on the BLS program. All four programs, which now yield virtually the same results, are described in the appendix.

The ILO definition and its interpretations

Unemployment, like most social phenomena, can be defined in different ways. No single definition can satisfy all analytical purposes.[5] However, in the interests of international comparability, the ILO provides national statistical offices with recommendations on the definition and measurement of unemployment.[6] These guidelines have become the standards for many countries; consequently, definitions used in labor force surveys are now broadly similar in outline and spirit if not in all of their details.

The ILO guidelines are the result of meetings of experts and discussions at periodic international conferences of labor statisticians attended by delegates representing national governments, employer's organizations, and labor unions. Compromises are made among the various constituencies, as well as among countries at different levels of development. Sometimes the guidelines must be deliberately vague or provide options in order to achieve consensus. The guidelines certainly facilitate cross-country comparisons, because they serve to draw countries toward a common conceptual framework. The OECD has worked toward making the guidelines more specific in order to enhance comparisons among its member countries,[7] and Eurostat's Community Labor Force Surveys have helped to establish common interpretations within the European Union.

According to the latest ILO guidelines, the unemployed are persons over a certain specified age who are without work, available for work, and actively seeking work. Virtually all countries agree that an unemployed person should be without any work at all; that is, employment takes precedence over unemployment. They also agree that unemployed persons should be available for work and actively seeking work. However, countries have chosen to implement these latter two criteria differently, which causes certain incompatibilities in the measurement of unemployment internationally. Further, in a number of other areas, the ILO definition has been either interpreted differently or not followed at all, particularly in regard to the treatment of students, persons on layoff, persons waiting to start a new job, and unpaid family workers. Lower age limits and the treatment of the Armed Forces also differ.

The varying interpretations of unemployment and the labor force (the sum of the employed and the unemployed) derive from different national circumstances and needs. Countries generally have very good reasons for their own interpretations of, or deviations from, the ILO definitions. But these differences, of course, create problems for international comparisons. The ILO recommends that those countries which choose to deviate from the guidelines collect data that permit one to convert from the national to the international standards. Some countries do this; others do not.

Exhibit 1 compiles the latest ILO guidelines, U.S. and Canadian concepts, and the Eurostat interpretation of the ILO guidelines used in European Union labor force surveys. The U.S. concepts are those of the Current Population Survey (CPS) from 1994 onward, Canada's concepts are those of the Labor Force Survey from 1997 onward, and the Eurostat concepts are those of the Community Labor Force Survey from 1992 onward. In this article, for the European countries, it is more convenient to present adjustments based on the Eurostat data rather than the data from the national labor force surveys.[8] Sweden's national concepts, however, will be referenced with regard to that country's treatment of students. The Bureau adjusts the Swedish national data on this point in its unemployment comparisons program, as do Eurostat and the other comparative programs.

The ILO states that population censuses and sample surveys of households or individuals (often called labor force surveys) constitute a comprehensive means of collecting data on the labor force. Establishment surveys and administrative records may also serve as sources for obtaining more precise, more frequent, and more detailed statistics on particular com-

Exhibit 1. Synopsis of coverage and concepts of unemployment in labor force surveys, International Labor Office (ILO), United States, Canada, and Eurostat

Item	ILO standard (1982 onward)	United States (1994 onward)	Canada (1997 onward)	Eurostat (1992 onward)
Frequency of survey	At least biannualy	Monthly	Monthly	Annual, in spring[1]
Scope of survey:				
Households or persons	Unspecified	Households	Households	Households or persons
Institutional population	Included	Excluded	Excluded	Excluded
Collective households (hotels, motels, and so forth)	Included	Included	Included	Excluded
Special exclusions	None	None	Yukon and Northwest Territories; Indian reserves	Persons doing compulsory military service are excluded from the population of private households and regarded as members of collective households, even if, during the reference week, they are present in the private household to which they belong.
Labor force denominator:				
Age limits	Unspecified	16 years and older	15 years and older	15 years and older
Civilian or total	Total	Civilian	Civilian	Includes career military[2]
Treatment of unpaid family workers working fewer than 15 hours per week	Employed	Not in labor force; potentially unemployed	Employed	Employed
Unemployment				
Job search:				
Reference period for job search	Specified recent period	4 weeks	4 weeks	4 weeks
Search only by reading newspaper ads	Excluded	Excluded	Included	Included
Waiting to start new job	No search required	Search required	No search required; job must start in 4 weeks	No search required
Temporarily laid off	Search optional	No search required	No search required	Search required
Availability criterion:	Yes	Yes	Yes	Yes
When	Unspecified	During reference week	During reference week	Within 2 weeks of interview
Availability question asked	Yes	Yes	Yes	Yes
Exceptions	Unspecified	Temporary illness and waiting to start new job	Temporary illness, personal or family responsibilities, vacation, awaiting new job	None
Treatment of those temporarily laid off	Employed if formal job attachment; unemployed if no attachment and available for work; job search requirement is optional in such cases.	Unemployed if expecting to be recalled to job in 6 months or employer gives recall date. Must be available for work, but no job search required.	Unemployed if expecting to be recalled within 1 year and available for work; no search required.	Unemployed if actively looking for for work in the last 4 weeks and if available to start work in 2 weeks; otherwise classified as inactive. (See text for "zero hours" case.)
Treatment of full-time students seeking full-time work and available for work	Unemployed	Unemployed	Not in labor force	Unemployed
Treatment of unpaid family workers working fewer than 15 hours per week and available for work and seeking work	Employed	Unemployed	Employed	Employed

[1] A new EU regulation calls for labor force surveys on a continuous basis, with quarterly results.

[2] If residing in private households.

SOURCE: Prepared by the Bureau of Labor Statistics from the following documents: ILO *Resolution Concerning Economically Active Population, Employment, Unemployment, and Underemployment* (on the Internet at **http://www.ilo.org/public/120stat/res/ecacpop.htm**); "Explanatory Notes on Household Data," *Employment and Earnings* (Bureau of Labor Statistics, published monthly); "Notes on the Survey," *The Labour Force* (Statistics Canada, published monthly); and *The European Union Labour Force Survey: Methods and Definitions* (Eurostat, 1996).

ponents of the labor force. Although not explicitly stated by the ILO, it is well recognized that labor force surveys are the desirable source for international comparisons of unemployment. In most countries, such surveys cover the entire noninstitutional population of working age and broadly follow the ILO standard definitions. Administrative data on employment office registrations are not suitable for international comparisons, because they do not cover all persons who may be unemployed and because administrative regulations differ greatly across countries.[9] Therefore, exhibit 1 focuses on labor force survey sources of unemployment statistics.

A number of differences in frequency and scope of labor force surveys are apparent.

Frequency. The ILO recommends that countries collect and compile statistics on the labor force at least twice a year. The U.S. and Canadian surveys are conducted monthly, while the Eurostat survey is taken annually, each spring. A new European Union (EU) regulation calls for labor force surveys on a "continuous" basis, with quarterly results. Currently, Italy, the Netherlands, and the United Kingdom conduct quarterly surveys, Sweden's is monthly, and France and Germany conduct their surveys only in the spring of each year. France will begin continuous surveys next year, while Germany has not yet announced plans for more frequent surveys. Annual estimates of unemployment and the labor force for France and Germany are constructed by Eurostat and the national authorities on the basis of other indicators, such as employment office registrations and establishment surveys, that are available more frequently.

Scope. Exhibit 1 indicates that there are also some differences in the scope of the various surveys with regard to whether households or persons are surveyed and whether collective households are covered. Canada excludes the Yukon and Northwest Territories, as well as Indian reserves, from its survey.

The labor force denominator for calculating the unemployment rate also may differ in its composition, in several ways.

Lower age limits. The ILO advises that lower age limits should be established for the labor force, but it does not say what those limits should be. The United States has chosen to use an age limit of 16 years, while Canada and the EU countries cover persons 15 years and older.

Armed Forces. The ILO recommends including all members of the Armed Forces, whether career military or draftees (conscripts), as paid employees and, hence, in the labor force. The United States and Canada exclude all the Armed Forces and present their data on a civilian labor force basis, while Eurostat includes career military personnel residing in private households. From 1983 to 1993, the Bureau published U.S. unemployment rates on both a civilian and a total labor force basis.

Unpaid family workers. Unpaid family workers are to be counted among those in the labor force (employed), with no cutoff on the number of hours worked, according to the ILO. By contrast, the United States includes only those unpaid family workers who worked 15 or more hours in the reference week. Canada and the European Union follow the ILO definition.

Exhibit 1 also shows a number of differences in the definition of unemployment.

Active job search. The reference period for demonstrating that one is actively undertaking a job search is now 4 weeks for all the surveys. But the *meaning* of "active job search" may differ across countries. The ILO says that unemployed persons should be actively seeking work and that their job search activities should be tested. The ILO lists the following activities that can qualify a person as actively undertaking a job search:

- Registering at an employment exchange
- Applying to employers
- Checking work sites
- Placing or answering newspaper ads
- Seeking assistance of friends or relatives
- Looking for land, building, or machinery to establish one's own enterprise
- Applying for a business-related license
- Etc.

Note that there is no listing for "reading newspaper ads" or "studying newspaper ads"; the ILO clearly refers to "placing or answering ads." But "reading or studying ads" could enter the list under "Etc."

In the U.S. CPS, conducting an objectively measurable job search is a necessary condition for being classified as unemployed, except for those on temporary layoff. The CPS makes a distinction between search methods that are "active" and "passive" and excludes those who use passive methods alone from the count of the unemployed. Only methods that could result in a job offer without further action on the part of the jobseeker are considered "active." These methods include answering or placing newspaper ads, visiting employment offices or businesses, calling to inquire about a position, sending job applications, and asking friends and family members for job leads.

No such active/passive distinction is made in Canada and Europe, where activities aimed at gathering information about job opportunities are also considered legitimate job search methods, particularly when such activities are reported in the wake of a declaration of interest in finding work. Therefore, persons available for work whose only search method was looking at want ads in the newspaper[10] are counted as unem-

ployed in Europe and Canada, but not in the United States.[11]

Waiting to start a new job. According to the ILO, persons waiting to start a new job should be classified as unemployed without being required to have searched for a job during the previous 4 weeks. This definition is followed by Canada and Eurostat. Prior to 1994, the United States also subscribed to the ILO definition. Since 1994, the U.S. CPS requires that such persons engage in an active job search in the previous 4 weeks in order to be counted as unemployed.

Layoffs. ILO guidelines recommend classifying persons on layoff as employed if they have a strong attachment to their job (as determined by national circumstances and evidenced by payment of salary or the existence of a recall date, for example). If they are only weakly or not at all attached to their job, they are to be counted as unemployed. The ILO standards allow the job search to be optional in such cases, but require that the person be available to work. Countries have made divergent decisions on these points. Eurostat says that persons on layoff should be seeking work and be available for work in order to be classified as unemployed; otherwise, they are counted as not in the labor force.

In addition, Eurostat enumerates as employed a group of persons who could be considered similar to persons on layoff in other countries: persons who are classified as employed, but who are not at work due to "slack work for technical or economic reasons." These persons are so classified because they have a formal job attachment.

The United States and Canada count persons on layoff as unemployed and do not require them to be searching for a job. Since 1994 in the United States, persons on layoff must expect to be recalled to the job in 6 months, or the employer must have given them a recall date. Canada requires that persons on layoff have a recall date within a year in order to be classified as unemployed.

Current availability. The ILO definition says that the unemployed should be available for work in the reference period, but no particular reference period is specified, and no exceptions are noted. The United States and Canada interpret "current availability" to mean "availability to take up work in the reference week." Eurostat, by contrast, allows availability to extend to within 2 weeks after the time of the interview.[12] Canada makes exceptions to the availability criterion to allow persons who are temporarily unavailable because of illness, personal or family responsibilities, or vacations to be counted as unemployed. The only exceptions allowed by the U.S. CPS are for persons who respond that they are not available due to temporary illness or because they are waiting to start a new job.

The more restrictive interpretation of current availability by the United States is related to the fact that many students are in the labor force. The strict application of the criterion serves to count students only when they are truly available for work and not looking for a job to take up after the school term ends. This consideration may not be as important in countries without a large student workforce, and it perhaps helps to explain the wider window of availability allowed by Eurostat. Canada, which also has a large student workforce, contends with the issue in a different way, discussed next.

Students. The ILO definition says that students who satisfy all the criteria for classification as unemployed should be classified as such. They should not be treated as a special group. Canada and Sweden, however, treat students differently from other labor force groups. In the official national statistics of Canada, full-time students seeking full-time work are omitted from the ranks of the unemployed on the grounds that they could not be currently available, even if they respond that they are. In Sweden, full-time students seeking work (whether full or part time) are excluded from the unemployed. In the United States, it is not uncommon for full-time students to hold either full-time or part-time jobs; consequently, those who are seeking work are classified as unemployed if they also respond that they are currently available for work.

Canada and Sweden both have their reasons for not counting students as unemployed. In Canada, the labor market behavior of full-time students indicates that there is a peak of searching for full-time work in the spring and that the students do not tend to start the jobs until the school year is over, despite what they say about their availability. Therefore, most are not regarded as a current supply of full-time labor. Their omission overcompensates to some extent, because some would indeed take full-time work while attending school full time.[13] Sweden's government made a decision in 1986 that full-time students should be excluded even if they fulfill the three ILO criteria of being without work, seeking work, and being available for work.[14] Many of these students are enrolled in educational programs to increase their employability.

Eurostat follows the ILO guidelines with regard to students: the harmonized unemployment rate for Sweden is adjusted to include students who seek jobs. Likewise, the Bureau already makes this adjustment, which is a large one. (See BLS section in the appendix.)

Unpaid family workers. Because unpaid family workers working fewer than 15 hours per week are excluded from the CPS employment count, they are asked the questions that determine whether they are or are not counted as unemployed. If they are available for and actively seeking work, they are classified as unemployed. According to the ILO, Canadian, and European definitions, they *cannot* be unemployed, because they are classified as employed. (Because the number of unpaid family workers is already small, and the number unemployed would be even smaller, this difference is ignored in the sections that present adjustments of unemployment to U.S

concepts. The only accommodation made is to subtract all unpaid family workers working fewer than 15 hours per week from the denominator of the rate calculation.)

Differences in concepts

Differences in labor force and unemployment concepts among the United States and other countries derive from three situations: (1) The U.S. CPS does not follow the ILO definitions on a number of points on which other countries do follow the guidelines (see exhibit 2); (2) conversely, some countries diverge from the ILO definitions on elements for which the CPS is in accord with the ILO; and (3) in instances where the ILO guidelines are vague or optional, countries have chosen different interpretations.

The differences across countries can be summarized according to the direction of their impact on the U.S. unemployment rate: (1) differences causing U.S. rates to be understated in international comparisons; and (2) differences causing U.S. rates to be overstated in international comparisons. Concepts of "Europe" refer to the concepts of Eurostat rather than to national concepts, except for the references to students in Sweden.

Differences causing U.S. rates to be understated. The following differences make up this category:

- The U.S. lower age limit is 16 years. Canada and Eurostat use a lower limit of 15 years. Youths aged 15 tend to have higher-than-average unemployment rates.

- "Passive jobseekers" (persons reading or studying help-wanted ads in newspapers as their *sole* means of searching for a job) are not included in the U.S. unemployed; they are included in Canada and Europe.

- The criteria counting a person as currently available for work are broader in Canada and Europe than in the United States.

- In the United States, since 1994, persons waiting to start a new job are required to conduct a job search; no search activity is required for such persons in Canada or Europe.

Differences causing U.S. rates to be overstated. This category comprises the following differences:

- All persons on temporary layoff are counted as unemployed in the United States and Canada, with no requirement that the person conduct a job search. In Europe, persons on temporary layoff either must be classified as employed (because they have a strong attachment to their job) or must be actively seeking work (because they have a weak attachment to their job) in order to be counted as unemployed. Those with a weak attachment to their job and who are not seeking work are classified as not in the labor force.

- In the United States, students who are available for work and who are seeking a job are classified as unemployed. In Canada, full-time students who are available for work and who are seeking full-time work are classified as not in the labor force. In Sweden, full-time students who are available for work and who are seeking (either full-time or part-time) work are omitted from the labor force.

- In the United States, only family workers who worked 15 or more hours per week are included in the labor force denominator. *All* unpaid family workers are included in the denominator in Europe and Canada.

- The career military are not included in the labor force denominator in the United States or Canada. EU surveys include the career military residing in private households.

Exhibit 2. U.S. divergence from ILO guidelines

- The CPS data are on a civilian labor force basis; the ILO recommends a total labor force basis (including all Armed Forces personnel).
- The CPS excludes unpaid family workers working fewer than 15 hours per week from the labor force (although some may be included in the unemployed if they are actively seeking work and are available for work); the ILO recommends including all unpaid family workers in the labor force.
- The CPS classifies all persons on layoff (who have a recall date or who expect to be recalled within 6 months) as unemployed; the ILO recommends that a distinction be made between those persons laid off, but who have a strong attachment to their job, and those laid off and who have a weak attachment to their job; those with a strong attachment (as evidenced by a recall date) should be counted as employed.
- The CPS requires those waiting to start a new job to search for work in order to be classified as unemployed; the ILO recommends that such persons be exempt from any requirement to search for work.

Adjustments made for comparability

During the 1960s and 1970s, the Bureau made numerous adjustments to foreign data to render them more comparable to U.S. data.[15] The need for large adjustments diminished considerably during the 1980s and 1990s as more countries began to conduct regular labor force surveys that generally followed the ILO recommendations. Nowadays, labor force surveys have become the norm for measuring unemployment, probing questions have been added, and search and availability tests have been included and applied to all potentially unemployed persons. These improvements, however, often have not been implemented in exactly the same way, as described in the foregoing section.

Currently, the Bureau makes adjustments for only a few of the differences that remain. Foreign data are adjusted to a civilian labor force basis by excluding military personnel from the labor force for countries where they are included. Unpaid family workers working fewer than 15 hours per week are also excluded. These adjustments are usually facilitated by published national data. The numbers of unpaid family workers were fairly large in some countries in the 1960s, but they have tapered off to the point that they are now so small that adjustments are generally negligible or nil. The only adjustment to unemployment made by the Bureau is to add students seeking a job to the Swedish unemployed, based on data published by Statistics Sweden. (Note that Eurostat also makes this adjustment for Sweden.)

Heretofore, the Bureau has accepted foreign data on unemployment as comparable to U.S. concepts if availability and job search tests were applied. The Bureau did not investigate or adjust for any differences in how these requirements were implemented. The BLS *Handbook of Methods* and semiannual and monthly releases of comparative unemployment rates alert data users to the fact that, on certain points where countries apply different concepts or methods of implementation, no adjustments are made. Thus, no adjustments are currently made on a number of disparities, on the grounds that (1) the adjustments would make very little, if any, difference, (2) the information needed is not readily available in published form, or (3) the adjustments should not be made.

The Bureau does not make any adjustments to omit the passive jobseekers in the Canadian and European unemployment figures. The reason is twofold: first, such data have not been available on a regular and consistent basis, and second, the Canadian data remain unpublished. Neither are adjustments made for the differences in the implementation of the current-availability criterion, for lack of specific data on this point. By contrast, data on persons waiting to begin a new job are generally available, but adjustments are not made because the numbers are thought to be very small. The "waiting" status is usually a classification that is based on information volunteered in surveys, rather than information elicited with a specific question, which would be likely to yield higher numbers. Also, some persons waiting to start a new job may have sought work in the previous 4 weeks and would therefore be properly classified as unemployed.

The BLS comparisons program has long taken the position that other countries' lower age limits should not be standardized to the U.S. age limit of 16, but that they should be adapted to the age at which compulsory schooling ends in each country. Accordingly, data for Canada, Germany, Italy, and the Netherlands are left reflecting age 15 or older, whereas data for France, Sweden, and the United Kingdom are adjusted, if necessary, to age 16 or older. It could be argued, however, that all of the foreign data should be adjusted to the U.S. age limit of 16 years of age or older, for stricter comparability with the U.S. definition.

The BLS program does not adjust for differences in the treatment of layoffs, on the grounds that American and European layoffs are fundamentally different situations that should remain under national definitions. This position, explained in detail in a 1981 article,[16] is reassessed here in view of the change in the BLS definition of temporary layoffs in 1994. Since that time, an expectation of recall or a recall date given by the employer is required for being classified as laid off in the United States. This change raises the possibility that adjustments should be made to the European data to include persons on layoff (the "zero hours" group mentioned earlier) in the unemployed on the grounds that they are not working at all and are likely to have a recall date or expectation of recall, as is the case with U.S. layoffs. On the other hand, it could also be argued that Europeans in such circumstances are more likely to be called back to their jobs than their U.S. counterparts and should *not* be included in the unemployed. At any rate, an adjustment will be included in this article to illustrate the impact of that group.

The sections which follow show that reasonable estimates are feasible for many of the differences that are not currently accounted for. The availability of previously unpublished data for Canada, as well as for the European Union countries via Eurostat, allows for the quantification of many of the differences. The adjustments can be made for a long historical span of years for Canada, but are confined to just a single year, 1998, for the European countries. Further work is needed to see if reasonable adjustments can be made back in time for these countries. Adjustments back to 1994 appear to be feasible.

It will be shown that many of the adjustments are indeed small and have to be taken out to at least two decimal places to be visible. In addition, the adjustments both add and subtract categories and, to some degree, cancel out.

Canadian unemployment rates

Even though both the United States and Canada subscribe to most of the standard concepts established by the ILO and ask

very similar questions in their labor force surveys, a Statistics Canada analysis reveals that differences remain that affect the comparability of the respective unemployment rates. Statistics Canada published an article in 1998 that identified the following differences between Canadian and U.S. concepts:[17]

- 15-year-olds are included in the labor force in Canada, but are excluded therefrom in the United States.
- Reading newspaper ads qualifies as a job search in Canada, but not in the United States.
- In Canada, persons waiting to start a new job are counted as unemployed without having to search for a job; in the United States, a job search has been required for these persons since 1994.
- Those unavailable for work due to personal or family responsibilities or vacations are included in the unemployed in Canada, but not in the United States.
- Full-time students seeking full-time work who are available for work are excluded from the unemployed in Canada, but included in the United States.

Statistics Canada identified a few other differences, but considered them too small to matter:

- Canada excludes the Yukon and Northwest Territories and Indians on reservations from the scope of its survey.
- With regard to layoffs, Canada requires that the person have a recall date within a year in order to be classified as unemployed without having to undertake a job search. The United States puts no time limit on the recall date.[18]
- Unpaid family workers are counted in the Canadian labor force, with no lower limit on their weekly hours worked. The United States requires that they work at least 15 hours to be counted in the labor force.

The Canadian article presented an adjustment of the Canadian unemployment rate to U.S. concepts. The data used in making the adjustment were from unpublished tabulations by Statistics Canada from the Canadian labor force survey for the period 1976 to 1997. A later article updated the adjustments to 1998.[19]

Table 1 shows the Statistics Canada analysis. The table indicates that the unemployment rate gap between Canada and the United States was reduced from 4.3 percentage points to 3.5 percentage points in 1997. In 1998, the gap declined from 3.8 percentage points to 3.0 percentage points. The figures are given in the following tabulation:

	1997	*1998*
Official Canadian rate	9.2	8.3
Official U.S. rate	4.9	4.5
Adjusted Canadian rate	8.4	7.5

Of interest is the fact that the impact of the differences has grown over time. In 1976–81, the adjustments had virtually no impact. During the rest of the 1980s, the impact grew from 0.3 percentage point to 0.4 percentage point. From 1990 to 1998, the impact of the differences rose from 0.4 percentage point to between 0.7 and 0.9 percentage point.

There was a slight impact (0.1 to 0.2 percentage point) from the combined effect of the removal of 15-year-olds, persons waiting to start a new job, and persons unavailable because of personal or family responsibilities or vacations. A significant impact in recent years (0.7 percentage point to 0.8 percentage point) was due to the removal of passive jobseekers. On the other hand, the inclusion of full-time students seeking full-time work increased the Canadian unemployment rate by 0.3 percentage point, partly offsetting the other differences that decreased the rate.

A Statistics Canada analysis of job searches notes that the unemployed changed their approach to looking for work over the past two decades.[20] Unemployed jobseekers were making greater use of job advertisements and personal networks and less use of formal institutions such as public employment agencies and unions. The growth in reading ads as the only method of search was most evident among the long-term unemployed, and the incidence of long-term unemployment increased in Canada over the period. Among the reasons cited is that reading of help-wanted ads becomes more common as other methods of search are exhausted and as the jobseeker approaches "burnout."

European unemployment rates

Table 2 presents adjustments of EU unemployment rates to U.S. concepts for spring 1998. The adjustments are shown for the European Union as a whole, as well as for the six member countries that are included in the BLS comparisons series. To summarize, greater comparability is achieved by applying the following two measures:

- Removing from the labor force 15 year-olds, unpaid family workers working fewer than 15 hours per week, career military personnel, and those omitted from the unemployed. (See next.)
- Removing from the unemployed 15 year-olds, passive jobseekers, persons waiting to start a new job, and those not available for work in the reference week and adding an adjustment for layoffs and for double-counting the removed groups.

Another way to organize the adjustments shown in table 2 is by the direction of their impact on the unemployment rate. Eurostat rates are adjusted upward by

- including among the unemployed those persons on temporary layoff who are not seeking work,
- excluding career military from the denominator, and

Table 1. The Canadian unemployment rate adjusted to U.S. concepts, 1976–98

Year	Unemployment rate		Modification to Canadian rate due to—							
				Then removal of—			Then addition of—			
	Official Canadian	Official United States	Removal of 15-year-olds	Passive job search	Future starts beginning 1994	Those unnavailable because of personal or family responsibilities or vacations	Full-time students looking for full-time work	Total modifications to Canadian unemployment rate	Official gap	Modified gap
1976	7.2	7.7	–0.1	–0.2	0.0	–0.1	0.2	–0.1	–0.5	–0.6
1977	8.1	7.1	.0	–.2	.0	.0	.2	–.1	1.0	.9
1978	8.4	6.1	–.1	–.2	.0	.0	.2	–.2	2.3	2.1
1979	7.5	5.8	–.1	–.2	.0	.0	.2	–.2	1.7	1.5
1980	7.5	7.1	–.1	–.2	.0	.0	.2	–.2	.4	.2
1981	7.6	7.6	–.1	–.3	.0	.0	.2	–.2	.0	–.2
1982	11.0	9.7	–.1	–.4	.0	.0	.2	–.3	1.3	1.0
1983	11.9	9.6	.0	–.5	.0	.0	.2	–.3	2.3	2.0
1984	11.3	7.5	–.1	–.5	.0	.0	.2	–.4	3.8	3.4
1985	10.5	7.2	.0	–.5	.0	.0	.2	–.4	3.3	2.9
1986	9.6	7.0	–.1	–.5	.0	.0	.2	–.4	2.6	2.2
1987	8.9	6.2	–.1	–.5	.0	–.1	.2	–.4	2.7	2.3
1988	7.8	5.5	–.1	–.5	.0	–.1	.2	–.4	2.3	1.9
1989	7.5	5.3	.0	–.5	.0	–.1	.2	–.4	2.2	1.8
1990	8.1	5.6	.0	–.5	.0	–.1	.2	–.4	2.5	2.1
1991	10.4	6.8	–.1	–.6	.0	.0	.2	–.5	3.6	3.1
1992	11.3	7.5	–.1	–.7	.0	.0	.3	–.5	3.8	3.3
1993	11.2	6.9	.0	–.8	.0	.0	.3	–.5	4.3	3.8
1994	10.4	6.1	–.1	–.8	–.2	–.1	.3	–.8	4.3	3.5
1995	9.5	5.6	.0	–.8	–.2	–.1	.3	–.8	3.9	3.1
1996	9.7	5.4	–.1	–.8	–.2	–.1	.3	–.9	4.3	3.4
1997	9.2	4.9	–.1	–.7	–.2	.0	.3	–.8	4.3	3.5
1998	8.3	4.5	–.1	–.6	–.3	.0	.2	–.8	3.8	3.0

SOURCE: Statistics Canada, *Labour Force Update*, autumn 1998, p. 35, and summer 1999, p. 32. These data do not reflect recent revisions to incorporate 1996 census results and a new method of estimation. Thus, the figures differ slightly from the revised rates shown in table A–1 of the appendix.

NOTE: Components may not add to total modifications column due to rounding.

- excluding unpaid family workers working fewer than 15 hours from the denominator.

Eurostat rates are adjusted downward by excluding from the unemployed

- passive jobseekers,
- those who were not currently available for work in the reference week,
- 15-year-olds, and
- persons waiting to start a new job who did not seek work.

The rationale behind the upward adjustments is as follows.

Layoffs. According to Eurostat, persons on temporary layoff and seeking work constitute a negligible group, accounting for about 0.2 percent of total EU unemployment.[21] Thus, this small group is already counted as unemployed. As mentioned earlier, some persons reported as employed are working "zero hours" in the reference week for technical or economic reasons and could be considered laid off in the U.S. sense of the term. Whether they should be classified as unemployed for comparisons is debatable; an adjustment will be made here to illustrate the impact.

Eurostat publishes the number of persons absent from work during the reference week due to economic and technical reasons. The figures indicate that the EU unemployment rate would be increased by only 0.1 percentage point by including these persons among the unemployed.

Military personnel and unpaid family workers. Together, the exclusion of the career military and unpaid family workers working fewer than 15 hours per week would result in an upward adjustment of less than 0.1 percentage point. The total upward adjustment, from these two sources and those working "zero hours" in the reference week for technical or economic reasons, rounds to 0.2 percentage point.

The reasoning behind the downward adjustments is as follows.

Passive jobseekers. In the Eurostat labor force surveys through 1997, the reporting on methods of job search was

fairly limited and restricted to the main method used. Beginning in 1998, Eurostat asked for all methods used from a list of 12. The results indicate that in the EU countries, 46 percent of the unemployed studied advertisements as at least one of their methods of job search, but that only 2.15 percent of the unemployed used this search method exclusively. The results for selected countries are given in the following tabulation, which lists the percent of total unemployment engaged in each of the two activities shown:

	Studied ads	*Studied ads only*
France	73.14	0.15
Germany	37.53	.44
Italy	31.07	5.43
Netherlands	0	0
Sweden	4.00	0
United Kingdom	85.98	2.51

Clearly, there is a wide range in both categories within the European Union. The United Kingdom had, by far, the largest proportion (86 percent) of the unemployed who used reading advertisements as a method of searching for a job, and Italy had, by far, the largest proportion (5 percent) who used that method exclusively. In France and Germany, significant proportions of the unemployed studied ads, but very few used the method as their only way of looking for work.

The zero figures for the Netherlands and Sweden warrant some explanation. The Netherlands survey continues to collect data on the main method of search only. The preceding tabulation indicates that no unemployed person studied ads as his or her main method of searching for a job; hence, none used the method exclusively either. Only about 10 percent of the Dutch unemployed replied that they *inserted* or *answered* help-wanted ads as their main method of job search. This percentage indicates that use of the help wanted ads is low in the Netherlands. As regards Sweden, only a very small proportion of persons studied ads as one of their methods of search, and none used it as their only method. Thus, no adjustment appears to be needed for these two countries on the passive-search issue.

National data from a few countries help to corroborate the 1998 results from Eurostat. Special tabulations by the U.K. Office for National Statistics for 1997 report that one-third of

Table 2. Adjustment of European Union data to U.S. concepts, spring 1998, all 15 EU countries and six selected EU countries

[Numbers in thousands]

Item	Source	All 15 EU countries	France	Germany	Italy	Netherlands	Sweden	United Kingdom
Reported labor force	Eurostat	169,408	25,568	39,393	22,915	7,742	4,333	28,661
Less 15-year-olds	Eurostat	220	9	24	58	72	–	–
Less unpaid family workers working fewer than 15 hours per week	Eurostat	362	35	129	29	19	8	58
Less career military	Eurostat	436	–	228	4	33	15	–
Less other adjustments to unemployment (net)[1]	Eurostat	1,029	226	152	242	13	11	105
Adjusted civilian labor force	Eurostat	167,361	25,298	38,860	22,582	7,605	4,299	28,498
Reported unemployment	Eurostat	17,330	3,099	3,856	2,849	340	387	1,778
Less 15-year-olds	Eurostat	57	2	2	21	19	–	–
Less passive jobseekers	Eurostat	373	5	17	155	–	–	45
Less those waiting to start a new job	Eurostat[2]	430	185	75	59	10	5	36
Less those not available for work in reference week	Estimate[3]	347	62	77	57	7	8	36
Plus double-count adjustment	Estimate[4]	121	25	17	29	4	1	12
Plus layoffs	Eurostat	177	15	7	56	–	9	34
Adjusted unemployment	...	16,421	2,886	3,709	2,642	308	385	1,707
Unemployment rate (in percent):								
Reported	...	10.2	12.1	9.8	12.4	4.4	8.9	6.2
Adjusted to U.S. concepts	...	9.8	11.4	9.5	11.7	4.0	8.9	6.0
Ratio of adjusted rate to reported rate	...	.96	.94	.98	.94	.92	1.00	.97
Current BLS adjusted rates	...	([5])	12.1	9.8	12.5	4.4	9.0	6.2
Ratio of adjusted rate to reported rate	...	([5])	1.00	1.00	1.01	1.00	1.01	1.00

[1] Net sum of passive jobseekers, those waiting to start a new job, those not available for work in the reference week, and double-count adjustments. Persons on layoff are already counted in the labor force and are deemed employed.

[2] Estimated as half of those reported as waiting to start a new job, in order to eliminate those seeking work from the adjustment.

[3] Estimated as 2 percent of the unemployed.

[4] Estimated as 10 percent of the sum of the subtracted categories.

[5] Not applicable; the Bureau does not adjust data for all 15 EU countries.

NOTE: Dash indicates negligible or nil.

SOURCES: Eurostat, *Labour Force Survey Principal Results 1998*, Theme 3, November 1999; unpublished results provided by Eurostat; and BLS adjustments.

the unemployed said that their main method of job search was reading newspaper ads.[22] Most persons, however, used more than one job search method, and the average was four to five methods. All of the other methods listed qualify as "active" in the U.S. sense of the term. Studying advertisements was the sole method of search for only 7 percent of those for whom it was the main method. Overall, 2.4 percent of the unemployed were in this "only passive search" category. This is about the same proportion yielded by the 1998 Eurostat data. Further corroboration from national data appears in an OECD paper on methods of job search. The paper established that persons using *only* passive methods amounted to 0.1 percent of the unemployed in France and 1 percent in Norway.[23] At the current time, national statistics for other EU countries are not available on the passive-search issue.

In table 2, the reported spring 1998 Eurostat data on the percentage of persons studying newspaper ads as their sole method of search is used to make the adjustment to exclude passive jobseekers. Overall, this adjustment eliminates about 0.2 percentage point from the unemployment rate for the European Union. The magnitude of the adjustment is highest for Italy, where 0.6 percentage point is subtracted from the unemployment rate. For the United Kingdom, 0.2 percentage point is subtracted. For all the other EU countries examined in this article, the impact of removing the passive jobseekers is practically nil.

Availability. The number of unemployed persons who were not currently available for work in the reference week is difficult to estimate. Some indication of the order of magnitude is available from the Danish labor force survey, which collects information according to the period the person can start working (within 1 week, within 2 weeks, within 1 month, and so forth). For 1998, Statistics Denmark reported that 96 percent of the unemployed said that they would be available to work within a week rather than within the 2 weeks allowed for being classified as unemployed.[24] Of course, "within a week" overlaps with, but goes beyond, "the reference week." Therefore, the figure obtained is not precisely the figure needed. In addition, under U.S. concepts, those temporarily ill or waiting to start a new job should be considered unemployed even though they are not currently available for work. A reasonable estimate, used in table 2, is that the impact is 2 percent of the unemployed, resulting in a reduction of almost 0.2 percentage point in the EU unemployment rate. This estimate is about the same magnitude as the estimated impact of expanding the availability window in the United States, discussed in a later section.[25]

15-year-olds. Unpublished Eurostat data indicate that the unemployment rate of 15-year-olds is high—about 25 percent—but that the numbers of unemployed 15-year-olds are so small that the overall EU unemployment rate is reduced by only 0.02 percentage point. The 1998 Netherlands rate, however, is more visibly affected: the jobless rate declines by 0.2 percentage point, from 4.4 to 4.2 percent, with the elimination of 15-year-olds from the rolls of the unemployed.

Waiting to start a new job. In the Eurostat survey, the number of persons waiting to start a new job amounts to 5.5 percent of total unemployment in 1998. There is no information as to how many were seeking work, however, because this group is not asked the question on job search. Assuming that half of these persons should be excluded from the unemployed under U.S. concepts because they were not actively seeking work in the past 4 weeks, the estimated reduction in the EU unemployment rate would be about 0.2 percentage point. For France, the adjustment on this point has a much larger impact. The reported unemployment rate of 12.1 percent is reduced to 11.5 percent when this group is subtracted. Possibly, the reason for the relatively large number of such persons in France is that the French survey asks a question directly about this issue rather than relying on volunteered information.

Double-counting. Overall, the reductions in the EU unemployment rate total 0.6 percentage point (rounded). This figure is then adjusted slightly by adding back an estimated 10 percent of the sum of the downward adjustments to the unemployed, to take into account the possibility of double-counting among the groups that were eliminated. (For example, a 15-year-old may also be a passive jobseeker.) This further adjustment does not change the overall reduction of 0.6 percentage point.

Overall adjustment. On balance, the overall adjustment for the European Union is 0.4 percentage point downward (up by 0.2, down by 0.6). Thus, the spring 1998 EU unemployment rate of 10.2 is reduced to 9.8. Extrapolating from this result, the annual average EU unemployment rate of 9.9 percent in 1998 is reduced to 9.5 percent.

Europe's 5.5-percentage-point gap with the United States, obtained by using the current standardized rate in 1998, is reduced to 5.1 percentage points, explaining less than 10 percent of the total gap. A large differential between the U.S. and Europe remains unaccounted for by the measurement differences.

The overall small reduction in the EU unemployment rate masks somewhat larger adjustments for particular countries. Table 2 indicates that France's unemployment rate falls from 12.1 percent to 11.4 percent with the additional adjustments, mainly due to the adjustment to exclude persons waiting to start a new job. The rate for the Netherlands declines from 4.4 percent to 4.0 percent, chiefly due to the exclusion of 15-year-olds. For Italy, the downward adjustment for passive job searches is the main reason for the reduction of the rate from 12.4 percent to 11.7 percent. For Germany, Sweden, and the United Kingdom, on the other hand, the adjustments have a negligible impact.

The next-to-last line of table 2 also shows what the Eurostat

rates would be if only the adjustments the Bureau currently makes were applied.[26] The figures are virtually the same as the reported rates, because the current BLS adjustments are so small; they simply subtract the number of unpaid family workers working fewer than 15 hours and the number of career military from the labor force. No adjustments are made in the Eurostat unemployed.

U.S. rates under European concepts

Another way of looking at the comparison is to adjust U.S. rates to European concepts. This is important in assessing the comparative programs of the OECD and the ILO, which do not currently adjust the unemployment data for the United States, presenting them as comparable with data from the other OECD countries. The following adjustments should be made to U.S. data for greater comparability with Eurostat concepts:

Adjust U.S. rates upward by

- including passive jobseekers,
- loosening the current-availability requirement,
- including 15-year-olds, and
- removing the search requirement for persons waiting to start a new job.

Adjust U.S. rates downward by

- excluding persons on temporary layoff,
- including all career military in the denominator, and
- including unpaid family workers who worked fewer than 15 hours per week in the denominator.

The upward adjustments are rooted in the following considerations.

Passive jobseekers. An unpublished BLS analysis (based on 1997 data) indicates that if passive jobseekers who were without work and available for work had been included in the unemployed, they would have composed about 3.4 percent of total U.S. unemployment.[27] Their inclusion would have increased the unemployment rate only marginally, by about 0.15 percentage point.

Availability. According to unpublished BLS tabulations, if all persons who would have met the unemployment criteria except for the fact that they were not available for work during the reference week were added to the U.S. unemployed, the rate would rise by 0.3 percentage point. The figure for those who would be available within the 2-week Eurostat time frame is likely to be lower. Persons who are temporarily ill or waiting to start a new job are classified as unemployed by the CPS if they are not currently available for work. In addition, the Canadian adjustment to remove from among the unemployed persons who are unavailable for work in the reference week because of personal or family responsibilities was only nil to 0.1 percentage point. An assumption of an increase of 0.1 percentage point in the U.S. rate for greater comparability with Europe on the availability criterion thus seems reasonable.

15-year-olds. These young persons are enumerated by the CPS, but are not included in the U.S. labor force. Unpublished BLS data indicate that including 15-year-olds would raise the unemployment rate by 0.08 percentage point.

Waiting to start a new job. Unpublished BLS data show that the impact of adding to the unemployed persons waiting to start a new job who are not seeking work would be even smaller than adding 15-year-olds (0.05 percentage point).

Overall, the upward adjustments total 0.4 percentage point. Because the groups are mutually exclusive, there is no need to enter an adjustment for double-counting.

The downward adjustments are based on the following points.

Layoffs. The number of persons on temporary layoff in the United States in 1998 made up 14 percent of total U.S. unemployment. Most likely, some of the Americans on layoff would be classified as employed by Eurostat because they have a recall date or an expectation of recall and they are not seeking work. BLS tabulations indicate that approximately 40 percent of those classified as laid off said that they had been looking for work in the previous 4 weeks. (It is not known how many were actively seeking work and how many were passively seeking work, because no further inquiries were made into their job search.) Assuming that the entire 40 percent were actively seeking work (and therefore should continue to be counted as unemployed), the adjustment removes 60 percent of those on layoff from the U.S. unemployed, lowering the U.S. rate by 0.38 percentage point.

Unpaid family workers and military personnel. The number of unpaid family workers working fewer than 15 hours is so small as to have no impact, but including the Armed Forces in the denominator would lower the U.S. rate slightly, by 0.04 percentage point.

Overall, the downward adjustments total 0.4 percentage point, which is identical in magnitude to the upward adjustments. Thus, the U.S. unemployment rate of 4.5 percent in 1998 remains unchanged when EU concepts are applied.

Table 3 summarizes the adjustments of the spring 1998 European unemployment rate to U.S. concepts (derived from table 2) and the adjustment of the annual average 1998 U.S. rate to European concepts, in terms of percentage points.

The outcome of the two modes of adjustment is given in the following tabulation:

Table 3. Fraction-of-a-percentage-point impact of two modes of adjustment, 1998

Item	Spring European unemployment rate to U.S. concepts	Annual average U.S. unemployment rate to European concepts
Passive jobseekers	−0.198	+0.146
Availability criterion	−.184	+.100
15-year-olds	−.020	+.080
Waiting to start a new job	−.228	+.055
Double-count adjustment	+.064	–
Subtotal	−.6	+.4
Layoffs	+.104	−.378
Unpaid family workers	+.022	–
Military	+.026	−.040
Subtotal	+.2	−.4
Total adjustment	−.4	0

NOTE: Dash indicates category not applicable.

SOURCES: Column 1 calculated from table 2, column 2 from unpublished BLS data.

	Unemployment rate	
	EU	*U.S.*
EU concepts	10.2	4.5
U.S. concepts	9.8	4.5

U.S. rates under Canadian concepts

The following adjustments are made to fit the 1998 U.S. unemployment rate to Canadian concepts:

	Fraction of a percentage point
Passive jobseekers	+0.146
15-year-olds	+0.080
Waiting to start new job	+0.055
Availability criterion	+0.050
Students	−0.100
Net adjustment	+0.2

The first three adjustments are the same as the previously discussed adjustments of the U.S. rate to European concepts. The adjustment for the difference in availability criterion is different, however. Including among the unemployed persons unavailable for work for personal or family reasons would raise the U.S. rate by an estimated 0.05 percentage point—half the magnitude, in terms of percentage points, of the availability adjustment applied to European countries when one is adjusting their data to U.S. concepts.

An additional adjustment is needed to fit the U.S. treatment of students to Canadian concepts. This adjustment subtracts from the U.S. unemployed full-time students aged 16 to 24 years who are seeking full-time work. The adjustment is based on unpublished data from the CPS that include "doesn't matter" responses to the question whether the student is seeking full- or part-time work. Statistics Canada does not use this response category, but advised the Bureau that if it did, then such persons would be classified together with students seeking full-time work. This adjustment results in a decrease of 0.1 percentage point in the U.S. unemployment rate. On balance, all of the aforesaid adjustments raise the U.S. unemployment rate by 0.2 percentage point. The 1998 Canada-U.S. comparisons yield the following results:

	Canada	*United States*
Unemployment rate, U.S. concepts	7.5	4.5
Unemployment rate, Canadian concepts	8.3	4.7

Applying U.S. concepts indicates that the gap between the Canadian and American unemployment rates is 3.0 percentage points. Under Canadian concepts, the gap is 3.6 percentage points. The latter is closer to the gap (3.8 percentage points) based on the unadjusted rates for each country.

Limitations of the analysis

The analysis presented in this article has several limitations. First, in the case of Europe, the adjustments presented here are based upon only 1 year: 1998. The Canadian study shows that the impact of adjustments can change over time. Further, U.S., Canadian, and Eurostat definitions have changed over the years, and such changes would have to be taken into account in a historical analysis. For example, prior to 1994, the U.S. treatment of persons waiting to start a new job was identical to that of Canada and Eurostat, and adjustments would not need to be made for that factor in those years.

Another limitation is that some of the data needed to make the adjustments are not available in precisely the form required. Unpublished tabulations fill a number of the gaps, but some estimation is still involved regarding such factors as the impact of including or excluding passive jobseekers among the unemployed, differences in the current-availability criteria, and the treatment of layoffs.

Questions remain as to whether some of the adjustments should be made at all. For instance, should adjustments be made to add student jobseekers in with the unemployed for Canada and Sweden when statistical offices in those countries have omitted them on the grounds that their availability is uncertain? Are U.S. and European layoffs so fundamentally different that adjustments should not be made on their account? Are the adjustments to the U.S. age limit of 16 years justified for all countries?

Unmentioned thus far in the analysis for lack of any factual basis for adjustment are *non*conceptual differences that could

have an impact on the comparisons, but for which the direction of bias, if any, is unknown. Among these are such elements as the frequency and scope of surveys, the wording and ordering of questions, proxy responses, and the survey's sample design and mode of data collection. National experiences with changes in these matters tell us that they can have an influence on unemployment figures.[28] Further, hidden or illegal activities may not be captured in labor force surveys to the same degree across countries. Clearly, any total accounting of country differences would have to consider all sources, but this would, equally clearly, be beyond the scope of statistical inference. Data users should be cognizant of this realm of nonconceptual differences.

Finally, the article does not cover two countries in the BLS comparisons: Japan and Australia. In one BLS study, adjustments for Japan covering the period 1984–92 tended to cancel out and leave the official Japanese rate virtually unchanged under U.S. concepts.[29] But this work needs to be updated to the late 1990s to see if the results have changed. Neither Japan nor Australia includes passive jobseekers in the unemployed.

THE CURRENTLY PUBLISHED FOREIGN UNEMPLOYMENT RATES adjusted to U.S. concepts are imperfect, but further adjustments can be made to bring them conceptually closer together. These additional adjustments, however, do not change the main outcome of the current BLS comparisons. The analysis presented in this article indicates that the U.S. unemployment rate in the late 1990s really was lower than the European and Canadian unemployment rates, whether looked at from U.S., Canadian, or European concepts.

At some point, rates could converge to a greater extent, and then the small adjustments discussed here would matter in ranking countries by unemployment rate, especially for Canada vis-à-vis the United States. With that possibility in mind, later this year the Bureau plans to incorporate the adjustments to the Canadian unemployment rates from 1976 onward into its comparative series. Statistics Canada has agreed to supply all the data needed on an ongoing basis.

The Bureau also is considering further adjustments to the EU countries' data. However, these adjustments are more difficult to make, and they also seem less necessary, given their smaller impact. Yet the effects on the French, Italian, and Dutch unemployment rates are probably significant enough to warrant adjustments. Further study is needed to see if adjustments are feasible, at least for 1994 onward, for the European countries in the BLS comparisons program. □

Notes

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In April 2000, the paper was presented at the annual meeting of the OECD Working Party on Employment and Unemployment Statistics in Paris. Comments from representatives of international organizations and national statistical offices at that meeting have also informed the work.

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Any errors that remain are the sole responsibility of the author.

[1] The BLS comparisons program does not adjust rates for Canada or the European Union. Canada's 8.3-percent rate is that country's official figure, and the 9.9-percent rate quoted for the European Union is based upon the OECD Standardized Unemployment Rates program, derived from Eurostat figures. Note also that the OECD does not adjust the U.S. unemployment rate for comparability with EU concepts.

[2] Explaining the non-measurement-related reasons for cross-country differences in unemployment is one of the main purposes of the project titled "Understanding Unemployment and Working Time: A Cross-Country Comparative Study," being conducted under grants from the Ford and Rockefeller Foundations. See the acknowledgments for more information.

[3] See tables 43 and 44 in the "Current Labor Statistics" section of this issue of the *Review*. See also table 1 in the appendix to this article.

[4] Earlier work has already been done on Japan, but it will need to be updated because of revisions made to U.S. definitions in 1994. For that earlier work, see Sara Elder and Constance Sorrentino, "Japan's low unemployment: a BLS update and revision," *Monthly Labor Review*, October 1993, pp. 56–63.

[5] The recognition of the diversity in the uses of unemployment data led Julius Shiskin, former Commissioner of the Bureau of Labor Statistics, to formulate and introduce the range of labor market measures U–1 through U–7 in 1976. (See Julius Shiskin, "Employment and unemployment: the doughnut or the hole?" *Monthly Labor Review*, February 1976, pp. 3–10.) International comparisons based on U–1 through U–7 were published in Constance Sorrentino, "International unemployment indicators, 1983–93," *Monthly Labor Review*, August 1995, pp. 31–50. In October 1995, the Bureau introduced a revised set of alternative measures in John E. Bregger and Steven E. Haugen, "BLS introduces new range of alternative unemployment measures," *Monthly Labor Review*, October 1995, pp. 19–26.

[6] The latest ILO international definitions of unemployment were adopted in October 1982 at the Thirteenth International Conference of Labor Statisticians meeting in Geneva. The definitions represented an update and clarification of standards set in 1954. For the text of the 1982 resolution, see the ILO Web site at **http://www.ilo.org/public/english/120stat/res/ecacpop.htm**.

[7] The OECD Working Party on Employment and Unemployment Statistics has been influential in harmonizing the interpretation of the ILO guidelines among its member countries. In 1983, for example, the Working Party recommended that OECD countries fix the job search reference period at 4 weeks. At that time, countries were using reference periods varying from 1 week to 60 days. Since 1983, 4 weeks has become the common job search period in most OECD countries, eliminating an important source of incompatibility in unemployment statistics.

[8] BLS adjustment procedures are based upon data from the national labor force surveys of Italy, Sweden, and the United Kingdom. Eurostat data are used directly for France and Germany.

[9] Despite the preference for labor force survey data in international comparisons, administrative data may be used as a component in the generation of monthly comparative unemployment rates. For countries that carry out only quarterly or annual surveys, comparative monthly rates are produced from the monthly administrative data on registered unemployment, adjusted by information from the labor force surveys. This is the method currently used by the Bureau and Eurostat for France and Germany, for example.

[10] Reading job ads on the Internet is becoming a popular method of searching for jobs in many countries. In the U.S. survey, such persons would be treated in the same way as persons reading newspaper ads and would not be counted as unemployed, unless they took a more active step, such as submitting a job application.

[11] The relevant Eurostat search category is "studied advertisements in newspapers," whereas Canada's questionnaire uses "looked at job ads."

[12] Eurostat states in its definitions that "currently available" should mean "available to start work within 2 weeks of the reference period." Further elaboration in explanatory notes reveals that this means "2 weeks from the day of the interview." (See *The European Union Labour Force Survey: Methods and Definitions* (Eurostat, 1996), pp. 13, 69.)

[13] Information based on communication with Statistics Canada. (See also "The UR gap—small differences in measurement may matter," *Labour Force Update* vol. 2, no. 4 (Statistics Canada, autumn 1998), p. 33.)

[14] Information based on communication with Statistics Sweden.

[15] The earlier adjustments were described in detail in *International Comparisons of Unemployment*, Bulletin 1979 (Bureau of Labor Statistics, August 1978).

[16] See Joyanna Moy and Constance Sorrentino, "Unemployment, labor force trends, and layoff practices in 10 countries," *Monthly Labor Review*, December 1981, pp. 3–13 (esp. pp. 8–11), for a discussion of why the Bureau does not make adjustments for temporary layoffs in other countries.

[17] "The UR gap," pp. 31–35.

[18] U.S. definitions specify that, in order to be classified as unemployed, the person on layoff must expect to be recalled to the job in 6 months or the employer must have given the person a recall date. There is no time restriction on the latter.

[19] "Supplementary Measures of Unemployment," *Labour Force Update*, vol. 3, no. 3 (Statistics Canada, summer 1999), p. 32.

[20] Lee Grenon, "Looking for Work," in *Perspectives on Labour and Income* (Journal of Statistics Canada), autumn 1998, pp. 22–25.

[21] *Labour Force Survey: Methods and Definitions, 1992 Series* (Eurostat, June 1992).

[22] "Job Search Statistics: The U.K. Perspective" (no author listed), paper presented at the July 6–7, 1998, meeting of the Paris Group on Labour and Compensation, London.

[23] Andrew Clark, "Methods of Jobsearch by the Unemployed in OECD Countries," paper presented at the 17th meeting of the Working Party on Employment and Unemployment Statistics, Paris, April 22 and 23, 1999.

[24] Communication from Statistics Denmark.

[25] The estimated impact of expanding the current availability window in the United States is 0.1 percentage point, or 2 percent of the unemployed.

[26] The figures are hypothetical for Italy, Sweden, and the United Kingdom, because the BLS adjustment procedure is not based on the Eurostat data for these countries. Instead, the procedure uses the various national labor force surveys. For France, Germany, and the Netherlands, the procedure uses the Eurostat data in combination with OECD data.

[27] Phil Rones, "Comparison of the Labor Market Outcomes of Active and Passive Job Search," paper presented at the July 6–7, 1998, meeting of the Paris Group, London; see especially table 1. However, it was difficult to identify all passive jobseekers, because there are many paths through the CPS questionnaire and some passive jobseekers would not have been presented with the question on current availability and hence would not have been included in the tabulation.

[28] For a discussion and assessment of the impact of the revised 1994 U.S. questionnaire, see Anne E. Polivka and Stephen M. Miller, "The CPS after the Redesign: Refocusing the Economic Lens," in John Haltiwanger, Marilyn E. Manser, and Robert Topel (eds.), *Labor Statistics Measurement Issues*, National Bureau of Economic Research, Studies in Income and Wealth, vol. 60 (Chicago, University of Chicago Press, 1998), pp. 249–89.

[29] Elder and Sorrentino, "Japan's low unemployment."

APPENDIX: The four programs compiling international comparisons of unemployment

Comparisons of unemployment rates across countries "approximating U.S. concepts" were first made on a regular basis by the Bureau of Labor Statistics (BLS, the Bureau) in the early 1960s. During the late 1970s, the Organization for Economic Cooperation and Development (OECD) entered the field, with its Standardized Unemployment Rates (SURS) program; the Statistical Office of the European Communities (Eurostat) began a monthly comparative series in the mid-1980s. In the late 1980s, the International Labor Office (ILO) initiated a program of annual ILO-Comparable Unemployment Rates. All of these programs make adjustments in national data to a common conceptual base. The BLS program adjusts such data to U.S. concepts, while the other three comparative programs adjust their data to ILO concepts, with some variations in interpretation. Exhibit A–1 (page 20) presents a synopsis of the four series.

Rates based on the standardized data published by these four organizations used to be quite different for some countries; in recent years, however, the rates have converged to the point that they are virtually identical.[1] In late 1996, the OECD accepted the Eurostat figures for the EU countries in its SURS series. The ILO-Comparable series is meant to conform with the SURS, although the methodology has not been fully implemented.[2] The one remaining significant difference among the three series was removed in October 1999 when the Bureau modified its comparative series for Germany to cover unified Germany. Previously, the Bureau had maintained its series for the former West Germany only.

Eurostat's survey uses common definitions that are applied across the EU countries. Like the Bureau, the OECD and the ILO adjust national data for some, but not all, of the conceptual differences. All four agencies adjust the Swedish data by adding the students who are seeking work to the unemployed. Like the Bureau, the OECD and the ILO do not adjust for the different treatments of current availability and active job search. OECD's SURS are on a "civilian labor force" basis, but some career military remain in the figures for the EU countries. The OECD makes no adjustment to exclude them. The ILO adjusts national data, where relevant, to include all unpaid family workers and all the Armed Forces (resident and stationed abroad) in the labor force, unless the numbers are very small.

The latest tabulations of standardized BLS and OECD rates are shown in tables A–1 and A–2. Because the OECD SURS are currently identical to the Eurostat figures for the EU countries, there is no need to show a separate Eurostat tabulation. The data from the ILO-Comparable series are not shown either, because, in theory, those data correspond to the OECD SURS. There are some small differences, however, in virtue of the ILO's inclusion of all the Armed Forces in the labor force denominator.

None of these organizations claim that perfect comparability has been achieved; nevertheless, they assert that, for international comparisons, their adjusted series form a better basis for analysis than the unadjusted national data available from each country.

Bureau of Labor Statistics

The BLS series is the longest in existence, but has the smallest coverage of countries among the comparative programs. Currently, 10 developed countries are included in the series. (See table A–1, which excludes one of the countries, the Netherlands, for which data are compiled only on an annual basis.) Companion variables, such as employment ratios and participation rates, are published in a semiannual compendium of labor force statistics.[3]

The BLS series is expressed as "approximating U.S. concepts," indicating some inexactitude in the figures. In its *Handbook of Methods*, the Bureau acknowledges that there are differences for which no adjustments are made, most of which are very small in impact, but that the differences in interpretation of what constitutes a job search for qualification for being classified as unemployed may be more significant.[4]

The BLS adjustment process works on national labor force surveys for Canada, Australia, Japan, Italy, Sweden, and the United Kingdom. All of these countries have either monthly or quarterly labor force surveys. For France, Germany, and the Netherlands, the BLS adjustments proceed from data published by Eurostat and the OECD, rather than from the national data. It is more convenient to work from the international data for these countries for several reasons. For instance, France and Germany conduct only annual surveys, whereas the international organizations provide monthly

Table A-1. Unemployment rates in nine countries, civilian labor force basis, approximating U.S. concepts, seasonally adjusted, 1990–2000

Year and quarter or month	United States	Canada	Australia	Japan	France	Germany[1]	Italy[2]	Sweden	United Kingdom
1990	5.6	8.1	6.9	2.1	9.1	5.0	7.0	1.8	6.9
1991	6.8	10.3	9.6	2.1	9.6	[3]5.6	[3]6.9	3.1	8.8
1992	7.5	11.2	10.8	2.2	[3]10.4	6.7	7.3	5.6	10.1
1993	6.9	11.4	10.9	2.5	11.8	7.9	[3]10.2	9.3	10.5
1994	[3]6.1	10.4	9.7	2.9	12.3	8.5	11.2	9.6	9.7
1995	5.6	9.4	8.5	3.2	11.8	8.2	11.8	9.1	8.7
1996	5.4	9.6	8.6	3.4	12.5	8.9	11.7	9.9	8.2
1997	4.9	9.1	8.6	3.4	12.4	9.9	11.9	10.1	7.0
1998	4.5	8.3	8.0	4.1	11.8	9.3	12.0	8.4	6.3
I	4.7	8.6	8.1	3.7	12.0	9.8	11.8	8.8	6.4
II	4.4	8.3	8.0	4.2	11.7	9.5	12.0	8.7	6.3
III	4.5	8.2	8.1	4.3	11.7	9.1	12.0	8.5	6.3
IV	4.4	8.1	7.7	4.5	11.5	8.9	12.0	7.6	6.3
1999	4.2	7.6	7.2	[p]4.7	[p]11.1	[p]8.7	11.5	7.1	[p]6.1
I	4.3	7.9	7.5	4.7	11.3	8.9	11.9	7.2	6.3
II	4.3	7.8	7.4	4.8	11.2	8.8	11.6	6.9	6.1
III	4.2	7.6	7.1	4.8	11.0	8.8	11.6	7.0	5.9
IV	4.1	7.0	7.0	4.7	10.6	8.7	11.1	7.1	5.9
October	4.1	7.1	7.1	4.7	10.8	8.8	11.1	7.1	5.9
November	4.1	6.9	6.8	4.6	10.6	8.7	–	7.2	5.9
December	4.1	6.8	7.0	4.7	10.4	8.5	–	7.0	5.9
2000									
I	4.1	6.8	6.8	4.9	10.0	8.4	11.3	6.9	–
January	4.0	6.8	6.9	4.7	10.3	8.4	11.3	6.9	–
February	4.1	6.8	6.7	4.9	10.0	8.4	–	6.9	–
March	4.1	6.8	6.9	5.0	9.8	8.4	–	6.8	–

[1] Unified Germany for 1991 onward. Prior to 1991, datea relate to the former West Germany.

[2] Quarterly rates are for the first month of the quarter.

[3] Break in series. See notes in "Current labor statistics," pp. 50–51, this issue.

SOURCE: Bureau of Labor Statistics, May 5, 2000.

NOTE: Quarterly and monthly figures for France and Germany are calculated by applying annual adjustment factors to current published data and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. For further qualifications and historical data, see "Comparative Civilian Labor Force Statistics, 10 Countries, 1959–1999," April 17, 2000. P = preliminary. Dash indicates data not available.

Table A-2. OECD standardized unemployment rates, May 2000 release

[Percent of civilian labor force unemployed]

Country	1997	1998	1999	Quarterly data (seasonally adjusted)		
				1999		2000, first quarter
				Third quarter	Fourth quarter	
Total OECD[1]	7.4	7.1	6.8	6.8	6.6	6.6
Canada	9.1	8.3	7.6	7.6	7.0	6.8
United States	4.9	4.5	4.2	4.2	4.1	4.1
Japan	3.4	4.1	4.7	4.7	4.7	4.8
Australia	8.5	8.0	7.2	7.1	6.7	6.7
New Zealand	6.7	7.4	6.8	6.8	6.3	–
Austria	4.4	4.5	3.7	3.6	3.6	3.5
Belgium	9.4	9.5	9.0	9.0	8.8	8.6
Czech Republic	4.8	6.5	8.8	9.0	9.2	–
Denmark	5.6	5.2	5.2	5.1	4.9	4.9
Finland	12.6	11.4	10.2	10.0	10.1	10.4
France	12.3	11.8	11.3	11.2	10.8	10.4
Germany	9.9	9.4	8.7	8.7	8.7	8.4
Hungary	8.9	8.0	7.1	7.1	7.0	–
Ireland	9.9	7.6	5.8	5.7	5.3	5.0
Italy	11.7	11.9	11.4	11.2	11.1	–
Luxembourg	2.7	2.7	2.3	2.3	2.2	2.2
Netherlands	5.2	4.0	3.3	3.3	2.8	–
Norway	4.1	3.3	3.2	3.3	3.7	–
Poland	11.2	10.6	–	–	–	–
Portugal	6.8	5.2	4.5	4.4	4.2	4.2
Spain	20.8	18.8	15.9	15.6	15.2	15.0
Sweden	9.9	8.3	7.2	7.1	6.8	6.5
Switzerland	4.2	3.5	–	–	–	–
United Kingdom	7.0	6.3	6.1	6.0	5.9	–
Fifteen EU countries	10.6	9.9	9.2	9.1	8.9	8.8

[1] Only the countries listed are included.

NOTE: The standardized unemployment rates for the European Union (EU) member countries are from Eurostat. The OECD is responsible for the calculation of the standardized unemployment rates for the non-EU countries. The latter have been adjusted when necessary and as far as the data allow, to bring them as close as possible to ILO (and Eurostat) guidelines for international comparisons of labor force statistics. The standardized rates are, therefore, more comparable between countries than the unemployment rates published in national sources. Dash indicates data not available.

SOURCE: OECD News Release, *Standardised Unemployment Rates*, May 12, 2000.

estimates of unemployment under ILO concepts. And although the Netherlands conducts quarterly surveys, the national definitions diverge substantially from ILO concepts.

The Bureau currently makes no adjustments to the Canadian data, and few adjustments are made to the data for the five EU countries covered in its program. The only adjustment the Bureau makes to unemployment figures is a rather large increase in the Swedish unemployed to add students seeking work and available for work, who are not counted as unemployed in Sweden. In 1998, when the national Swedish unemployment rate was 6.5 percent, the Bureau raised it to 8.4 percent for comparability with U.S. concepts. (Eurostat makes a similar adjustment for Sweden.)

Eurostat

The EU labor force survey covers the 15 member countries.[5] The survey is a joint effort by member states to coordinate their national surveys, which must also serve their own requirements. Many of the variables of a full labor force survey are published.

The survey questionnaires are not harmonized, and the wording and ordering of the questions differ. The Eurostat labor force survey is, in effect, a retabulation of the data from national surveys under Eurostat concepts. Generally, questions are added to the national survey instruments so that Eurostat concepts can be obtained. Despite close coordination, inevitably some differences in the surveys remain from country to country. It is difficult for an outsider to assess the degree of comparability achieved by Eurostat, which has not publicly documented the adjustments made to the national statistics. Eurostat states:

> Perfect comparability among 15 countries is difficult to achieve, even were it to be by means of a single direct survey, i.e. a survey carried out at the same time, using the same questionnaire and a single method of recording. Nevertheless, the degree of comparability of the EU labor force survey results is considerably higher than that of any other existing set of statistics on employment and unemployment available for Member States.[6]

Because of its unique ability to harmonize the EU country statistics, Eurostat is in a better position than the Bureau, the OECD, or the ILO to claim that its adjusted unemployment rates are closely comparable with each other. Also, the Bureau, the OECD, and the ILO must contend with comparing the Eurostat data with data from countries that are outside the European Union.

OECD SURS

OECD SURS cover 24 of the organization's 29 member countries, including several Eastern European countries in transition. (See table A–2.) A full array of comparative variables is not yet part of the SURS program. Only breakdowns of unemployment by sex are published.

The SURS are presented as rates that "are more comparable between countries than the unemployment rates published in national sources."[7] The OECD notes that the Eurostat rates it adopted in 1996 are "based on slightly different data and methodology compared to the former standardized rates that were calculated by the OECD."[8] Currently, the OECD makes no adjustments to the U.S. or the Canadian unemployment rate.

In its SURS press releases, OECD states that data for non-EU countries "have been adjusted when necessary, and as far as [they] allow, to bring them as close as possible to ILO (and Eurostat) guidelines for international comparisons of labour force statistics."

ILO-Comparable series

The ILO-Comparable series is unique in its coverage of both developed and developing countries. Currently, 32 countries are in the database, but data are published for only 24.[9]

The ILO claims that its data are consistent with the ILO guidelines for the measurement of employment and unemployment, "except where adjustments are negligible and therefore can be disregarded."[10] The program depends on national statistical offices to supply the data needed for adjustments. The ILO states,

> The impact of adjustments which appear necessary is looked at together with the total effect on the direction of the resulting labor force estimates and unemployment rates. Adjustments are only recommended when it is clear that the factors they address are important; not where their impact is marginal, or tends to cancel out in combination with one or more other factor(s).

Exhibit A–1. Four standardized series on unemployment

Category	BLS	OECD	Eurostat	ILO
Name of series	Unemployment Rates Approximating U.S. Concepts	Standardized Unemployment Rates (SURs)	Harmonized Unemployment Rates	ILO-Comparable Unemployment Rates
First published	Early 1960s	Early 1980s	Late 1980s	Late 1980s
Beginning year of data	1959	1974; 1982 for EU countries	1982	1981
Periodicity	Annual, quarterly, and monthly	Annual, quarterly, and monthly	Annual, quarterly, and monthly	Annual only
Conceptual basis	U.S. concepts	General ILO concepts; Eurostat interpretation for EU	Own interpretation of ILO concepts	ILO concepts; accepts OECD SURs
Labor force basis	Civilian	Civilian, but EU countries use Eurostat basis	Civilian, but includes career military living in private households	Total, including all members of Armed Forces, both regular and temporary
Number of countries	10	24	15	32 in database, 24 published
Other variables	Age-sex unemployment rates, participation rates, employment ratios, employment by sector	Unemployment rate by sex	All variables of a full labor force survey	Age-sex unemployment rates, participation rates, employment by sector
Web site	**http://stats.bls.gov/fls data.htm**	**http://www.oecd.org/news_and_events/new-numbers/**	**http://europa.eu.int/en/home.htm** (click on press releases for latest)	**http://laborsta.ilo.org**

The decision to adjust or not is agreed upon together with the national statistical offices.

One of the premises of the ILO-Comparable program is that its data conform with the OECD's SURs. The program was designed that way to avoid the dissemination of dissimilar "comparable" statistics for the same countries. Since the autumn of 1996, however, when the OECD adopted the Eurostat methodology and rates, the ILO and OECD figures have begun to diverge. The main divergence is that the ILO continues to include the Armed Forces in the denominator of the unemployment rate calculation. The two organizations were to renew their collaboration in order to resolve the differences.

Notes to the appendix

[1] Differences are generally on the order of 0.1 to 0.2 percentage point and are due to whether the Armed Forces are included or excluded and to technical factors, such as the method of interpolation and updating.

[2] See Sophia Lawrence, "ILO-Comparable annual employment and unemployment estimates (1999)," *ILO Bulletin of Labour Statistics*, 1999–3, pp. XII–XIII.

[3] The compendium is available at the Web site noted in exhibit A-1.

[4] *Handbook of Methods*, Bulletin 2490 (Bureau of Labor Statistics, April 1997), pp. 112–13.

[5] Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

[6] *The European Union Labour Force Survey: Methods and Definitions* (Eurostat, 1996), pp. 11–12.

[7] See note, table A–2.

[8] "Standardized Unemployment Rates," *OECD Quarterly Labour Force Statistics*, second quarter 1999, p. 134.

[9] The 24 countries for which data are published are Australia, Canada, Finland, France, Germany, Hong Kong (China), Indonesia, Ireland, Japan, the Republic of Korea, the Netherlands, New Zealand, Norway, the Philippines, Poland, Portugal, Romania, Singapore, Slovenia, Spain, Sweden, Switzerland, Turkey, and the United States.

[10] *ILO Bulletin*, p. XI.

Why are many jobless workers not applying for benefits?

More than half of those meeting the official definition of unemployment do not file for unemployment insurance benefits—either because they think they are not eligible or because they are optimistic about finding a job

Stephen A. Wandner and Andrew Stettner

The proportion of unemployed individuals receiving unemployment insurance (UI) has dropped steadily over the past 40 years. Recipiency rates—the number of persons receiving unemployment insurance benefits (from administrative data) divided by the total number of unemployed persons (from Current Population Survey data)—have provided a consistent measure of the UI program's scope. Recipiency rates averaged 49 percent in the 1950s, 42 percent in the 1960s, 40 percent in the 1970s, and 33 percent in the 1980s. The rate reached a low point of 28.5 percent in 1984, and since then it has stayed above 30 percent, reaching a recent high of 35.1 percent in 1996.[1] (See table 1.) This trend has raised concerns among policymakers that the UI program has become less responsive to U.S. workers. One explanation for the drop in recipiency rates is that fewer unemployed workers are filing for UI benefits. Unemployed workers cannot receive benefits if they do not apply. However, very little is known about these "nonfilers," because they do not enter into the UI system. This article reports on the results of two recent supplements to the Current Population Survey (CPS) that were designed to measure the magnitude of nonfiling and to determine the reasons that many unemployed persons do not seek benefits. The supplements were jointly sponsored by the Bureau of Labor Statistics (BLS) and the Employment and Training Administration (ETA) of the Department of Labor.

In its *Report and Recommendations,* the Advisory Council on Unemployment Compensation reported that declines in UI recipiency rates "have raised particular concern, in large part because they threaten the primary functions of the UI system."[2] On the microeconomic level, the decline in recipiency means that the UI system is serving fewer workers as a temporary wage replacement system. The decline in recipiency also has an impact on the macroeconomic function of unemployment insurance. If the recipiency rate does not increase substantially during a recession, the economy does not get a countercyclical infusion of consumer spending in response to an increase in total UI payments.

The structure of the Extended Benefits program highlights the impact of the decline in recipiency on the macroeconomic function of UI benefits. The insured unemployment rate (IUR)—the total number of continued unemployment insurance claims divided by the total number of employed covered by unemployment insurance—is the statutory trigger used by the Extended Benefits program, which provides benefits beyond the normal 26-week maximum benefit duration period during times of economic downturn.[3] The long-term decline in UI recipiency rates hampers the effectiveness of the Extended Benefits program because the trigger rate is less likely to cross the legal threshold during a recession. Understanding why individuals do not file for benefits may inform current policy discussions about reforming the Extended Benefits program of the UI system.

While a fair amount of research has been published about the decline in recipiency rates, research on why individuals choose not to file

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Table 1. Unemployment insurance recipiency rates, 1968–98

[Numbers in thousands]

Year	Unemployment rate	Total unemployment	Insured unemployment	Recipiency rate
1968	3.6	2,817	1,079	38.3
1969	3.5	2,832	1,065	37.6
1970	4.9	4,093	1,762	43.0
1971	5.9	5,016	2,102	41.9
1972	5.6	4,882	1,800	36.9
1973	4.9	4,365	1,578	36.2
1974	5.6	5,156	2,202	42.7
1975	8.5	7,929	3,900	49.2
1976	7.7	7,406	2,922	39.5
1977	7.1	6,991	2,584	37.0
1978	6.1	6,202	2,302	37.1
1979	5.8	6,137	2,372	38.7
1980	7.1	7,637	3,305	43.3
1981	7.6	8,273	2,989	36.1
1982	9.7	10,678	3,998	37.4
1983	9.6	10,717	3,347	31.2
1984	7.5	8,539	2,434	28.5
1985	7.2	8,312	2,561	30.8
1986	7.0	8,237	2,607	31.6
1987	6.2	7,425	2,265	30.5
1988	5.5	6,701	2,048	30.6
1989	5.3	6,528	2,114	32.4
1990	5.6	7,047	2,478	35.2
1991	6.8	8,628	3,291	38.1
1992	7.5	9,613	3,190	33.2
1993	6.9	8,940	2,694	30.1
1994	6.1	7,996	2,608	32.6
1995	5.6	7,404	2,518	34.0
1996	5.4	7,236	2,540	35.1
1997	4.9	6,739	2,267	33.6
1998	4.5	6,210	2,164	34.8
Average, 1968–98	6.3	6,990	2,487	35.6

SOURCE: Data for insured unemployment from the Employment and Training Administration (ETA); all other data from the Bureau of Labor Statistics (BLS).

for benefits is quite limited. The two CPS supplements examined here were conducted in an effort to fill this gap in the research. This article is the first published report on the second supplement, conducted in 1993; the earlier survey was analyzed by Wayne Vroman in 1991.[4] This article summarizes the results of both supplements and indicates the extent and limitations of our knowledge on nonfiling. In short, the survey confirms that nonfiling is a major policy issue: millions of unemployed workers know about the UI program but still do not apply. The results of this study support the notion that tighter UI eligibility standards played a large part in the decline of UI recipiency—most nonfilers do not apply for benefits because they think they are ineligible. In addition, optimistic job expectations were found to be the second most common reason for nonfiling. Finally, the results indicate that reason for unemployment, age of unemployed workers, and duration of unemployment all influence the decision whether to apply for benefits.

Previous research

In a study published in 1995, Daniel P. McMurrer and Amy Chasinov survey the major reasons for the long-term decline in UI recipiency.[5] They conclude that, over the long term, crucial characteristics of the U.S. labor force have changed. For example, many workers have migrated to the Southeast and Mountain regions of the country, where UI recipiency rates are lower than the national average; UI recipiency rates vary dramatically from State to State, ranging from a high of 59.3 percent in Rhode Island to a low of 19.2 percent in Virginia in 1997. Also, employment has declined in industries in which UI recipiency rates are higher (such as in manufacturing, mining and construction), applying downward pressure on the overall rates. In addition, unions play a key role in providing information about UI benefits, and as unionization has dropped, so has UI recipiency. Over the long term, the U.S. labor force has become younger, and it comprises more women and fewer heads of households—all factors contributing to lower recipiency rates.

In 1991, Rebecca M. Blank and David E. Card analyzed the UI eligibility and recipiency behavior of unemployed individuals, using microdata from the Current Population Survey and the Panel Survey of Income Dynamics (PSID).[6] They matched the PSID data on UI receipts, annual earnings, weeks and hours worked in the previous year, and reason for unemployment (with State-specific eligibility requirements). For example, reported earnings and hours are used to estimate whether workers would qualify under their State's earnings and hours regulations. With this procedure, the authors developed rough estimates of the fraction of UI-eligible employment for 1977–87; the estimates are rough because the data fail to accurately measure all monetary and nonmonetary criteria.[7] Using this method, these analysts found that the fraction of unemployed workers eligible for UI benefits remained constant over the 1977–87 period—41.7 percent in 1977 and 41.5 percent in 1987. Over the same period, however, the fraction of unemployed individuals receiving benefits dropped from 31.2 percent in 1977 to 27.3 percent in 1987. Blank and Card conclude that the "take-up rate"—the proportion of eligible unemployed workers who file for and receive benefits—has declined. They estimate that the take-up rate declined from almost 75 percent in the 1977–82 period to 67 percent in the 1982–87 period. Furthermore, Blank and Card found that the take-up rate varies from 48 percent in the Mountain Region to 85 percent in the Mid-Atlantic Region, leading them to conclude that regional shifts in unemployment may account for as much as half of the national decline in the take-up rate and the recipiency rate. Much of the variation in take-up rates, however, is left unexplained by the study.

To the extent that their algorithm is correct, Blank and Card's results highlight the nonfiling issue. Only nonfiling can decrease the take-up rate, because nonfiling is the only reason eligible workers do not receive benefits. Blank and Card test their eligibility algorithm by comparing their results with supplemental questions about unemployment insurance from the PSID. In 69 percent of cases, self-reported UI eligibility matched Blank and Card's imputed eligibility, indicating that the estimates are reasonably accurate. Of eligible nonrecipients of benefits, Blank and Card report that one-third do not file because they do not want the hassle of "government red tape," one-third did not need the money or expected to have another job soon, and one-tenth simply chose not to apply.

Gary Burtless and Daniel H. Saks performed an early analysis of the decline in UI recipiency, using data from the UI administrative files and from the CPS.[8] They concluded that the long-term decline in UI benefits was due in large part to the increasing number of women and young people that entered the labor market in the 1970s, because young people and women historically are less likely than men to receive benefits. The authors assert that eligibility restrictions and deterred filing were responsible for the accelerated decline in recipiency rates during the early 1980s. Important eligibility and related restrictions include the taxation of UI benefits, the implementation of a "waiting week," and stricter enforcement of work search and other nonmonetary eligibility requirements. Burtless and Saks predicted that UI recipiency would remain below historical levels for the foreseeable future.

In another study (1988), Walter Corson and Walter Nicholson made quantitative estimates of the impact of different factors on the decline in UI recipiency rates, using State- and national-level data.[9] Their analysis focused on the sharp drop in UI recipiency rates in the early 1980s. They estimate that changes in State policy—specifically, tighter monetary eligibility requirements, decreased income cutoff (by counting pension and social security income), and tougher nonmonetary eligibility requirements—account for about 40 percent of this decline in UI recipiency. Corson and Nicholson estimate that Federal policy changes—namely, the taxation of benefits—account for 11 to 16 percent of the decline. In addition, changes in the geographic distribution and industry experience of unemployed workers account for 5 to 20 percent of the decline.

Background on the supplements

Previous research has come to the consensus that the decline in UI recipiency can be attributed, at least in part, to eligibility restrictions and changes in the characteristics of the unemployed population, such as union status, place of residence, age, and gender. While these studies indicate the importance of nonfiling, they provide only crude explanations of why unemployed individuals choose not to file for benefits. To further understand nonfiling, the Employment and Training Administration and the Bureau of Labor Statistics collaborated on two supplements to the Current Population Survey. The first supplement was conducted in late 1989 and early 1990, and the second was conducted in 1993. The CPS, a monthly survey of about 50,000 households, provides standard measures of unemployment for the Nation and its regions. To find out more information about particular labor market issues, special supplements periodically are added to the CPS.[10]

Both supplements asked questions about whether experienced unemployed persons filed for UI benefits and whether they received UI benefits; if they did not apply, they were asked their reasons for not filing. Adding these questions to the labor market queries in the basic CPS makes it possible to combine information about benefit application and recipiency with a rich array of employment and demographic variables, including reason for unemployment, age, gender, and marital status.[11] The second CPS supplement represented an effort to extend the scope and accuracy of the earlier survey.

The first supplement (1989–90)

The first CPS supplement on nonfiling, reported on by Wayne Vroman in 1991, consisted of seven questions posed to approximately 3,000 households, each of which included at least one unemployed individual.[12] The selected households were rotating out of the CPS in May, August, and November 1989, and February 1990. The first three questions were yes/no questions that asked whether the person had applied and/or received UI benefits. The next three questions asked appropriate respondents (1) why they had not received UI benefits, (2) why they did not apply for UI benefits, and (3) why they did not think they were eligible for UI benefits.

The answers from the supplement were cross-tabulated with other important factors that influence benefit application and receipt: reason for unemployment, duration of unemployment, gender, and age. In terms of reason for unemployment, one-half of the unemployed were job losers who either had been laid off or had lost their job for some other involuntary reason. The other half were classified either as job leavers (those who had left their last job voluntarily and thus were unlikely to be eligible for benefits) or as "reentrants" into the labor force (those who had not worked recently but who currently were actively seeking employment).

Only about one-third (34 percent) of the unemployed in the sample reported applying for benefits. As expected, job losers (who are the most likely to be eligible for unemployment benefits) were the most likely to apply for benefits; job losers were about 5 times more likely than job leavers to apply for UI benefits (53 percent versus 11 percent). Appli-

cation rates also rose with duration of unemployment. Those who had been unemployed for 27 weeks or more were 3 times more likely to have applied for benefits than those unemployed for only 1 or 2 weeks. Age also is related to the application rate for benefits: men aged 16 to 19 years seldom applied for benefits (3 percent), while nearly half (48 percent) of those aged 25 and older did. Also, men were more likely than women to apply for benefits (38 percent versus 28 percent). Vroman's analysis states that the difference probably relates to the greater incidence of job losing among unemployed men than among unemployed women.[13] (See table 2.)

Only about a quarter of the experienced unemployed reported receiving UI benefits. Even among job losers aged 25 years and older (the group most likely to be eligible for UI benefits), less than half received benefits.[14] As expected, reentrants and job leavers were among the least likely to have received benefits. Interestingly, only about three-quarters of all those who applied reported actually receiving benefits. Clearly, some of the unemployed who applied for benefits were found to be ineligible, or else they had found a job before they received any benefits.

The main purpose of the 1989–90 survey was to ascertain the major reasons that so many (66 percent) unemployed individuals do not file for benefits. First, more than half (53 percent) of nonfilers surveyed in the first supplement stated that they did not apply because they thought they were not eligible for benefits. Other than this reason, the results of the 1989–90 supplement demonstrate that several plausible "common-sense" reasons do not have a great impact on the decision to file for benefits. For example, only about 3 percent of the unemployed did not apply for benefits because they thought it was "too much of a hassle." Contrary to the belief that their might be a "welfare stigma" associated with UI benefits, less than 3 percent of nonfilers responded that they did not apply because they felt UI was "too much like charity." Also, the unemployed do not appear to be ignorant of UI benefits: less than 3 percent responded that they did not apply for UI benefits because they did not know about them. (See table 3.)

Table 2. Unemployment insurance application and recipiency rates by age, sex, and reasons for and duration of unemployment, 1989–90

[In percent]

Characteristic	Application Rate	Recipiency Rate
Total unemployed	34.0	24.0
Reason for unemployment:		
Job losers	53.0	39.0
Job leavers	11.0	6.0
Reentrants	14.0	20.0
Gender and age:		
Men, 16 years and older	38.0	28.0
Men, 16 to 19 years	3.0	1.0
Men, 20 to 24 years	24.0	14.0
Men, 25 years and older	48.0	36.0
Women, 16 years and older	28.0	20.0
Women, 16 to 19 years	8.0	3.0
Women, 20 to 24 years	17.0	11.0
Women, 25 years and older	36.0	26.0
Duration of unemployment:		
1 to 2 weeks	18.0	5.0
3 to 4 weeks	29.0	16.0
5 to 10 weeks	38.0	32.0
11 to 26 weeks	43.0	37.0
27 weeks or more	53.0	42.0

SOURCE: Wayne Vroman, *The Decline in Unemployment Insurance Claims Activity in the 1980s*, Unemployment Insurance Occasional Papers 91–2 (U.S. Department of Labor, January 1991).

A substantial number of nonfilers (14 percent) surveyed in 1989 and 1990 stated that they did not apply because they expected to have a job soon. The fact that a substantial portion of nonfilers expect to have another job is particularly noteworthy. If the rate of job turnover among the unemployed changes over time, this may partly explain changes in the UI recipiency rate. Vroman speculates that as the economy becomes more fluid and individuals change jobs more frequently, recipiency rates will remain low.[15] However, from the first supplement it was not clear whether these nonfilers expected to be called back to their former jobs, whether they had new jobs lined up, or whether they were just optimistic about their job prospects.

Despite these important results, the 1989–90 survey provided a somewhat incomplete explanation of why individuals did not apply for UI benefits. For example, 20 percent of responses to the questions about reason for nonfiling were classified as "other" or "don't know."[16] Given that explaining nonfiling was the central purpose of the survey, this level of uncertainty was disappointing. The four main response categories provided by the survey did not account for the experiences of 1 out of 5 of the nonfilers surveyed in 1989–90.

Administrative data containing wage records would be the best data source for determining the monetary eligibility of nonfilers. Wage records and other information relating to nonmonetary eligibility criteria from State regulations would enable researchers to determine the true eligibility of nonfilers. In the absence of this hard data, both surveys collected self-reported reasons for UI ineligibility. The 1989–90 survey provided four possible responses to the question "Why are you ineligible for benefits?": "didn't work enough," "no recent job," "quit last job," and "fired from last job." All other responses were classified as "other." Slightly more than half of nonfilers (50.5 percent) responded that they were ineligible because they did not work enough. (This does not mean that these workers are "truly" monetarily ineligible be-

Table 3. Percent distributions of reasons for nonfiling by duration of and reason for unemployment, 1989–90

[Numbers in thousands]

Reason	Total nonfilers		Duration of unemployment (in weeks)					Reason for Unemployment		
	Number of persons	Percent distribution	1 to 2 weeks	3 to 4 weeks	5 to 10 weeks	11 to 26 weeks	27 weeks or more	Job losers	Job leavers	Reentrants
Total	3,670	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Didn't think eligible	1,938	52.8	47.5	51.5	53.0	62.2	58.4	45.0	53.1	59.9
Have another job	514	14.0	23.0	12.2	10.5	8.0	8.9	18.8	17.6	7.1
Plan to file	62	1.7	3.7	1.9	.2	.7	.0	4.0	.4	.4
Didn't know about UI	98	2.6	1.1	4.5	2.5	3.3	1.5	3.1	2.4	2.6
Too much hassle	103	2.8	2.2	3.7	2.3	2.8	3.7	4.7	1.5	1.9
Too much like charity	90	2.5	1.6	2.3	3.6	3.5	.7	2.4	3.5	1.9
Previously exhausted	64	1.7	1.5	1.0	1.9	1.7	4.8	3.2	.1	1.5
Other	397	10.8	10.0	12.1	12.8	6.3	11.9	9.0	10.0	13.1
Don't know	321	8.7	6.6	9.5	10.5	9.8	7.4	7.5	9.3	9.5
No answer	83	2.3	2.9	1.3	2.8	1.8	2.2	2.4	2.2	2.1

SOURCE: Wayne Vroman, *The Decline in Unemployment Insurance Claims Activity in the 1980s*, Unemployment Insurance Occasional Paper 91–2 (U.S. Department of Labor, January 1991).

cause not all unemployed workers know the earnings requirements of the States where they worked.) Among the different reasons for unemployment, job losers were the most likely (75 percent) to think that they did not work enough. Not surprisingly, more than 3 in 5 (62 percent) job leavers indicated that they thought they were ineligible because they had quit their last job. The "other" category accounted for 12 percent of the total responses. (See table 4.)

To recap, the two principal findings of the 1989–90 supplement were that perceived ineligibility and optimism about finding a job were the most common reasons respondents gave for nonfiling. In addition, the supplement provided data showing that ignorance of the UI system and the feeling that there was too much stigma or hassle involved in applying for benefits accounted for only a very small proportion of nonfilers. Still, from the list of possible responses, 20 percent of nonfilers answered either "don't know" or "other" when asked why they had not filed, leaving room for improvement in the follow-up supplement, conducted in 1993.

The second supplement (1993)

The first supplement did not include in its list of possible choices several important reasons that individuals failed to file for or to receive UI benefits, including several important nonmonetary criteria that are now being more vigorously enforced in many States.[17] The first supplement also did not determine whether nonfilers who expected to have a job actually had a job in hand, whether they expected to be called back to work, or whether they simply were confident that they would find a job. Thus, ETA sponsored a second supplement, which was conducted by BLS in 1993.

Design of the 1993 supplement. On the basis of lessons learned from the first supplement, designers of the 1993 supplement reformulated and refined the questionnaire, hoping to get improved results the second time around. In particular, several of the questions included additional response categories designed to obtain more specific information about why respondents had not filed for UI benefits. The new structure also allowed for a more complete explanation of nonmonetary and monetary reasons for ineligibility and the job expectations of nonfilers.

Like its predecessor, the 1993 supplement was administered in 4 nonconsecutive months; in this case, the months chosen were February, June, August and November, with a total sample of about 4,500 respondents. The supplemental questions were administered to experienced unemployed individuals—persons who had previously worked for 2 weeks or more on either a full-time or a part-time job.[18] As in the earlier supplement, unemployed respondents were asked if they had applied for and/or received UI benefits; it also included follow-up questions to determine reasons for nonfiling and ineligibility.

In addition to the survey, the initial research plan called for matching administrative wage files to the CPS data. Such a match would enable researchers to determine the consonance between "perceived" (survey) and "true" (administrative) eligibility. The research attempted to match these sources by asking CPS respondents to volunteer their Social Security number, which could be used to access the State administrative UI wage files.

Economic context of the 1993 supplement. Table 5 gives some overall perspective on the unemployment situation in 1993. The group studied—the experienced unemployed—

were more likely to be male, more likely to be job losers, and also were older than the total unemployed population. Because the sample population was more experienced in the labor market than the total unemployed population, the recipiency rate among the sample (35 percent) was higher than that among the total unemployed population (30 percent). The second supplement was conducted while the economy was just beginning to recover from the 1990–91 recession: monthly unemployment averaged close to 9 million, and the unemployment rate stayed close to 7 percent throughout the year. In contrast, when the earlier supplement was conducted, the number of unemployed persons totaled 7 million, and the unemployment rate hovered around 6 percent. Because recessions increase layoffs, a higher proportion of the unemployed in 1993 were job losers than in 1990—60 percent versus 52.3 percent.

Results of the 1993 supplement

Tables 6 and 7 display application and recipiency rates, respectively, by gender, reason for unemployment, and duration of unemployment in 1993. Less than half (46 percent) of the experienced unemployed applied for benefits, compared with one-third in 1990. Two facts help explain the increase in UI application rates: a greater proportion of the unemployed were job losers in 1993, and the economic prospects facing unemployed individuals were less favorable in 1993 than in 1990. Accordingly, recipiency rates also significantly increased from 1990 to 1993. For example, one-third of experienced unemployed persons received benefits in 1993, compared with one-fourth in 1990.

Like in 1990, job losers (63 percent) in 1993 were more likely to apply for benefits than were either job leavers (25 percent) or reentrants into the labor market (18 percent).[19] Job leavers and reentrants were the least likely to receive benefits (13 percent and 11 percent, respectively). The duration of unemployment had the same expected impact on application rates as in the earlier supplement: The longer individuals are unemployed, the more likely they are to need benefits and to apply for them. More than half of those unemployed for 27 weeks or more received benefits in 1993, compared with 17 percent of those who were unemployed for 3 or 4 weeks.

Age was also strongly correlated with nonfiling. For example, only 6 percent of unemployed individuals aged 16 to 19 applied for benefits, compared with 56 percent of those

Table 4. Self-reported reasons given for perceived ineligibility by reason for unemployment, 1989–90

[Numbers in thousands]

Reason	Total		Job losers		Job leavers		Reentrants	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	1,938	100.0	589	100.0	506	100.0	844	100.0
Didn't work enough	980	50.5	442	75.0	158	31.2	380	45.0
Quit last job	627	32.3	34	1.9	313	61.8	281	33.2
No recent job	66	3.4	11	2.3	0	.0	54	6.3
Fired from last job	20	1.0	14	2.4	0	.0	6	.1
Other	231	11.9	85	14.4	29	5.7	117	13.8
No answer	15	.1	2	3.4	6	1.2	7	0.8

NOTE: Percent totals may not sum to exactly 100 percent due to rounding.
SOURCE: Wayne Vroman, *The Decline in Unemployment Insurance Claims Activity in the 1980s*, Unemployment Insurance Occasional Papers 91–2 (U.S. Department of Labor, January 1991).

Table 5. Experienced unemployed persons by age, sex, and reasons for and duration of unemployment, 1993

[Numbers in thousands]

Age and sex	Total	Duration of unemployment (in weeks)					Reason for Unemployment		
		0 to 2 weeks	3 to 4 weeks	5 to 10 weeks	11 to 26 weeks	27 weeks or more	Job losers	Job leavers	Reentrants
Total, 16 years and older	7,843	1,219	1,444	1,587	1,790	1,803	4,713	947	2,183
Men, 16 years and older	4,446	630	773	857	1,033	1,154	3,006	526	915
16 to 19 years	380	98	119	85	52	26	119	72	189
20 to 24 years	709	132	175	148	141	112	385	103	220
25 years and older	3,358	400	478	624	839	1,016	2,502	351	505
Women, 16 years and older	3,396	589	671	730	757	649	1,707	421	1,268
16 to 19 years	326	74	91	87	45	28	80	59	187
20 to 24 years	544	104	110	162	108	60	201	81	262
25 years and older	2,528	412	470	481	603	561	1,425	281	820

Table 6. Percent of unemployed persons filing for benefits (application rate) by age, sex, and reasons for and duration of unemployment, 1993

Duration of unemployment	Total, 16 years and older	Men				Women			
		16 years and older	16 to 19 years	20 to 24 years	25 years and older	16 years and older	16 to 19 years	20 to 24 years	25 years and older
Total	45.6	50.6	6.6	35.2	58.8	39.0	6.1	25.9	46.1
0 to 2 weeks	23.5	25.3	7.3	26.8	29.3	21.6	[2]	13.3	27.0
3 to 4 weeks	29.2	34.1	9.4	19.1	45.7	23.6	0.0	15.8	30.0
5 to 10 weeks	45.4	50.3	4.3	34.3	60.4	39.6	8.6	31.8	47.8
11 to 26 weeks	57.8	64.1	[2]	46.7	71.0	49.1	[2]	35.4	54.4
27 weeks and over	61.7	63.5	[2]	56.9	65.6	58.3	[2]	[2]	63.2
Job losers	62.7	64.0	16.4	53.4	67.9	60.4	15.3	52.4	64.1
0 to 2 weeks	39.5	39.8	[2]	46.8	39.1	39.1	[2]	[2]	43.0
3 to 4 weeks	47.7	50.5	[2]	38.1	58.0	42.8	[2]	[2]	47.5
5 to 10 weeks	65.7	67.7	[2]	[2]	73.7	62.6	[2]	[2]	65.3
11 to 26 weeks	69.0	71.1	[2]	56.3	74.8	65.3	[2]	[2]	68.1
27 weeks and over	73.1	72.2	[2]	[2]	72.4	74.8	[2]	[2]	77.5
Job leavers	24.9	27.5	[2]	10.1	37.4	21.7	[2]	6.8	30.5
0 to 2 weeks	6.6	7.6	[2]	[2]	[2]	5.5	[2]	[2]	[2]
3 to 4 weeks	20.4	22.7	[2]	[2]	32.9	17.4	[2]	[2]	[2]
5 to 10 weeks	12.4	10.6	[2]	[2]	[2]	15.1	[2]	[2]	[2]
11 to 26 weeks	44.3	47.2	[2]	[2]	60.2	41.1	[2]	[2]	[2]
27 weeks and over	45.2	55.3	[2]	[2]	[2]	[2]	[2]	[2]	[2]
Reentrants[1]	17.5	19.7	1.2	15.1	28.6	16.0	4.0	11.4	20.2
0 to 2 weeks	9.1	2.6	[2]	[2]	5.1	12.9	[2]	[2]	15.2
3 to 4 weeks	9.8	8.1	[2]	[2]	14.7	10.9	[2]	[2]	15.0
5 to 10 weeks	21.4	25.7	[2]	[2]	35.5	18.4	[2]	11.2	25.6
11 to 26 weeks	25.5	37.6	[2]	[2]	51.6	16.9	[2]	[2]	20.5
27 weeks and over	26.7	27.1	[2]	[2]	30.5	26.3	[2]	[2]	28.9

[1] A small number of reentrants actually were experienced part-time workers classified as new entrants in the 1993 CPS.
[2] Data not shown where base is less than 75,000.

Table 7. Percent of unemployed persons receiving benefits (recipiency rate) by age, sex, and reasons for and duration of unemployment, 1993

Duration of unemployment	Total, 16 years and older	Men				Women			
		16 years and older	16 to 19 years	20 to 24 years	25 years and older	16 years and older	16 to 19 years	20 to 24 years	25 years and older
Total	35.1	38.8	0.8	22.3	46.6	30.3	2.9	18.0	36.5
0 to 2 weeks	6.5	5.3	.0	10.4	4.9	7.8	[2]	3.2	10.4
3 to 4 weeks	16.6	19.1	.0	7.9	27.9	13.7	0.0	5.0	18.4
5 to 10 weeks	35.7	42.3	3.7	22.3	52.4	27.9	1.8	22.0	34.5
11 to 26 weeks	49.4	53.2	[2]	33.9	59.7	44.3	[2]	31.4	49.1
27 weeks and over	54.7	55.0	[2]	44.0	54.2	58.3	[2]	[2]	58.8
Job Losers	50.6	51.1	2.6	36.4	55.6	49.8	9.7	37.3	53.9
0 to 2 weeks	9.9	7.5	[2]	18.1	5.2	13.9	[2]	[2]	16.9
3 to 4 weeks	27.7	27.3	[2]	18.3	33.6	28.3	[2]	[2]	33.0
5 to 10 weeks	54.9	60.0	[2]	[2]	66.7	47.2	[2]	[2]	51.0
11 to 26 weeks	61.8	62.2	[2]	45.2	66.1	61.0	[2]	[2]	63.9
27 weeks and over	67.5	65.6	[2]	[2]	66.1	71.3	[2]	[2]	73.7
Job Leavers	13.4	15.3	[2]	3.6	21.9	11.0	[2]	5.4	14.9
0 to 2 weeks	1.9	3.2	[2]	[2]	[2]	0.6	[2]	[2]	[2]
3 to 4 weeks	9.2	14.4	[2]	[2]	22.4	2.1	[2]	[2]	[2]
5 to 10 weeks	1.3	1.8	[2]	[2]	[2]	0.7	[2]	[2]	[2]
11 to 26 weeks	26.5	23.5	[2]	[2]	30.0	29.8	[2]	[2]	[2]
27 weeks and over	32.2	37.4	[2]	[2]	[2]	[2]	[2]	[2]	[2]
Reentrants[1]	11.2	12.2	.0	6.3	19.4	10.4	.8	7.1	13.6
0 to 2 weeks	3.9	1.5	[2]	[2]	3.0	5.3	[2]	[2]	6.4
3 to 4 weeks	5.8	5.4	[2]	[2]	13.3	6.1	[2]	[2]	9.6
5 to 10 weeks	14.1	17.7	[2]	[2]	25.3	11.7	[2]	5.9	17.1
11 to 26 weeks	18.0	24.3	[2]	[2]	37.5	13.5	[2]	[2]	16.0
27 weeks and over	17.4	13.9	[2]	[2]	16.1	21.5	[2]	[2]	24.0

[1] A small number of reentrants actually were experienced part-time workers classified as new entrants in the 1993 CPS.
[2] Data not shown where base is less than 75,000.

aged 25 years or older. Among unemployed persons aged 20 to 24, 30 percent applied for benefits. Younger unemployed individuals are less likely to be eligible for benefits because they work and earn less than older adults, and they may be more likely to leave their jobs for reasons that disqualify them from receiving UI benefits.

Reasons for unemployment. As in 1990, not all individuals who filed for benefits in 1993 received them; the number of applicants exceeded beneficiaries by more than 800,000 individuals. These results are very similar to the 1989–90 supplement: about 3 in 4 UI applicants reported receiving benefits in 1993. The discrepancy between filing for and receiving benefits is greatest among job leavers. A little more than half (54 percent) of job-leaving applicants received benefits in 1993, compared with 84 percent of job losers.[20] Many job leavers apply for benefits and then are ruled ineligible, probably because they do not realize that their reason for unemployment disqualifies them.

Reasons for nonfiling. The 1993 supplement was designed primarily to improve our knowledge of the reasons for nonfiling. Table 8 shows the population estimates and percentages for answers to the question "Why didn't you file for benefits?" As in 1990, the most common reason for nonfiling in 1993 was perceived ineligibility—either because the respondents thought they had not worked enough hours or because they had voluntarily left their previous jobs. Optimistic job expectations were the second most common reason for nonfiling.

In an effort to reduce some of the uncertainty in the earlier supplement, six additional possible response categories were added in 1993 to answer the question "Why didn't you file for benefits?" The additional responses related mostly to nonmonetary reasons for nonfiling and included the following: "didn't need the money," "wasn't able to work," "wasn't actively seeking work," "wasn't available for work," "unable to report to unemployment office," and "refused to accept suitable work." With the additional possible answers, only 13 percent of responses in 1993 were classified as "other" or "don't know"—a reduction in uncertainty from the 1989–90 survey of more than 30 percent. The number of respondents who indicated "don't know" as the reason they did not file was reduced by half—from 321,000 (8.7 percent) in 1990 to 155,000 (3.8 percent) in 1993. No single response was responsible for the reduction in uncertainty; of the new options, "was not able to work" was the most common response, but it only accounted for about 2 percent of the total responses.

Ineligibility. It was hoped that a more complete picture of ineligibility among nonfilers could be constructed from the data gathered in the 1993 supplement. The first effort to accomplish this goal attempted to match the survey data with State administrative wage data, but several obstacles arose. First, the matching was attempted in just six States, and only about one-third of the sample respondents lived in one of these States. Further, about half of those surveyed refused or gave no response to the Social Security number request. With such limited data, the match was determined to be ineffective and too costly to complete. Thus, the 1993 survey did not determine whether those individuals who believed they were ineligible were, in fact, ineligible. Like the earlier survey, the 1993 supplement relies on self-reported data for information on eligibility.

Based on their experience in 1989–90, the designers of the 1993 CPS supplement expected a large response rate of "didn't think eligible" to the question "Why didn't you file for benefits?" As a result, they included an additional question about the reasons for ineligibility in the 1993 survey to allow those answering "didn't think eligible" to refine their responses. Some of the possible responses to the follow-up question—for example, that they had voluntarily left their previous jobs, or that they were not actively seeking work—repeated the responses to the earlier question. For this reason, table 10 consolidates tables 8 and 9 and divides the responses into three categories: reasons for ineligibility, job expectations, and "other."

The consolidated reasons given for ineligibility were little different in 1993 than those given in the earlier supplement. In both surveys, about half (51 percent in 1989–90 and 50 percent in 1993) thought they were ineligible because they had not worked or earned enough. Also, both surveys showed that nearly 30 percent of respondents said they were ineligible because they had voluntarily left their last job (28 percent in 1993 and 29 percent in 1989–90). Thus, monetary ineligibility appears to have had a greater impact on nonfiling than nonmonetary ineligibility, with many workers reporting that they had not worked or earned enough to meet the UI eligibility requirements.

The 1993 survey provided additional response categories to the probe question asking why individuals did not think they were eligible. Several of the new response options—"was not able to work," "was not actively seeking work," "was not available for work," and "refused to accept suitable work"—relate to stricter nonmonetary continuing eligibility requirements imposed by State UI programs in the 1970s and 1980s. Overall, more than 6 percent of nonfilers gave these nonmonetary reasons for their ineligibility. At least from this analysis, then, these nonmonetary reasons had a small but measurable impact on discouraging workers from filing for benefits.

Regarding other aspects of ineligibility, both surveys yielded

Table 8. Main reasons given for nonfiling by reason for unemployment, 1993

[Numbers in thousands]

Reason	Total		Job losers		Job leavers		Reentrants [1]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total nonfilers	4,064	100.0	1,639	40.3	690	17.0	1,736	42.7
Didn't think eligible	1,368	33.7	562	34.3	212	30.7	594	34.2
Didn't work or earn enough	680	16.7	252	15.4	65	9.4	362	20.9
Voluntarily left last job	481	11.8	39	2.4	213	30.9	228	13.1
Expects to have a job soon	306	7.5	167	10.2	68	9.9	71	4.1
Expects to be recalled from the last employer	123	3.0	105	6.4	[2]	.0	18	1.0
Didn't need the money	77	1.9	17	1.0	18	2.6	41	2.4
Too much work or hassle	73	1.8	49	3.0	13	1.9	11	.6
Didn't know about UI or how to apply	73	1.8	21	1.3	4	.6	47	2.7
Was not able to work	62	1.5	2	.1	11	1.6	21	1.2
Too much like charity or welfare	45	1.1	29	1.8	8	1.2	8	.5
Plans to file for unemployment compensation soon	40	1.0	38	2.3	0	.0	2	.1
Used up or exhausted all benefits	39	1.0	31	1.9	1	.1	7	.4
Discharged for misconduct	34	.8	26	1.6	[2]	.0	8	.5
Was not available to work	34	.8	2	.1	[2]	.0	32	1.8
Was not actively seeking work	32	.8	8	.5	5	.7	19	1.1
Unable or failed to report to unemployment office	28	.7	9	.5	[2]	.0	20	1.2
Refused to accept suitable work	2	.0	[2]	.0	[2]	.0	[2]	.0
Other	353	8.7	137	8.4	36	5.2	179	10.3
Don't know	155	3.8	82	5.0	22	3.2	50	2.9
No answer	59	1.5	30	1.8	12	1.7	17	1.0

[1] A small number of reentrants actually were experienced part-time workers classified as new entrants in the 1993 CPS.
[2] Data not shown where base is less than 75,000.

Table 9. Self-reported reasons for UI ineligibility by reasons for unemployment, 1993

[Numbers in thousands]

Reason	Total		Job Losers		Job Leavers		Reentrants [1]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total ineligible	2,673	100.0	896	100.0	506	100.0	1,258	100.0
Didn't work or earn enough	1,325	49.6	571	63.7	123	24.3	631	50.2
Voluntarily left last job	754	28.2	76	8.5	328	64.8	351	27.9
Was not able to work	89	3.3	23	2.6	11	2.2	41	3.3
Was not available to work	55	2.1	6	.7	na	[2]	49	3.9
Was not actively seeking work	48	1.8	15	1.7	5	1.0	28	2.2
Discharged for msconduct	44	1.6	36	4.0	[2]	[2]	8	.6
Labor dispute	8	.3	5	.6	3	.6	[2]	[2]
Refused to accept suitable work	2	.1	2	.2	[2]	[2]	[2]	[2]
Didn't think eligible for benefits, but no other information available	348	13.0	162	18.1	36	7.1	150	11.9

[1] A small number of reentrants actually were experienced part-time workers classified as new entrants in the 1993 CPS.
[2] Data not shown where base is less than 75,000.

Table 10. Consolidated responses: reasons for nonfiling by reason for unemployment

[Numbers in thousands]

Reason	Total		Job losers		Job leavers		Reentrants [1]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Nonfilers	4,064	100.0	1,637	100.0	690	100.0	1,736	100.0
All ineligible reasons consolidated	2,673	65.8	911	55.6	506	17.0	1,258	72.5
Didn't work or earn enough	1,325	32.6	571	34.8	123	36.3	631	36.3
Voluntarily left last job	754	18.6	76	4.6	328	20.2	351	20.2
Didn't think eligible or qualified, but no further information available	348	8.6	162	9.9	36	8.6	150	8.6
Was not able to work	89	2.2	38	1.4	11	2.4	41	2.4
Was not available to work	55	1.4	6	.4	[2]	[2]	49	2.8
Was not actively seeking work	48	1.2	15	.9	5	1.6	28	1.6
Discharged for misconduct	44	1.1	36	2.2	[2]	[2]	8	.5
Labor dispute other than a lockout	8	.2	5	.3	3	.0	[2]	[2]
Refused to accept suitable work	2	.0	2	.1	[2]	[2]	[2]	[2]
All job expectations reasons consolidated	429	10.6	272	16.6	68	9.9	90	5.1
Expects to have a job soon	306	7.5	167	10.2	68	9.9	71	4.1
Expects to be recalled from the last employer	123	3.0	105	6.4	[2]	[2]	18	1.0
All other reasons consolidated	961	23.6	454	27.7	114	16.5	390	22.4
Didn't need the money	77	1.9	17	1.0	18	2.6	41	2.4
Didn't know about UI or how to apply	73	1.8	21	1.3	4	0.6	47	2.7
Too much work or hassle	73	1.8	49	3.0	13	1.9	11	.6
Unable or failed to report to unemployment office	47	1.2	20	1.2	[2]	[2]	27	1.6
Too much like charity or welfare	45	1.1	29	1.8	8	1.2	8	.5
Plans to file for unemployment compensation soon	40	1.0	38	2.3	[2]	[2]	2	.1
Used up or exhausted all benefits	39	1.0	31	1.9	1	.1	7	.4
Other	353	8.7	137	8.4	36	5.2	179	10.3
Don't know	155	3.8	82	5.0	22	3.2	50	2.9
No answer	59	1.5	30	1.8	12	1.7	17	1.0

[1] A small number of reentrants actually were experienced part-time workers classified as new entrants in the 1993 CPS.
[2] Data not shown where base is less than 75,000.

roughly similar results: In terms of self-reported information, the main reasons given for ineligibility are nearly identical, although the surveys were conducted at two very different points in the business cycle. In both surveys, some individuals believe they are ineligible but do not indicate why. In 1993, 13 percent of ineligible nonfilers were not able to give a reason why they thought they were ineligible for benefits.

As expected, the reasons for ineligibility varied by reason for unemployment. Job losers were the most likely to believe they were ineligible because they had not worked enough. Nearly two-thirds of ineligible job losers indicated this reason, and very few job losers indicated they were ineligible because they had voluntarily left their last jobs. On the other hand, job leavers were the most likely to believe that they were ineligible because they had voluntarily left their last jobs. About two-thirds gave this response, and only a quarter said they were ineligible because they had not worked enough.

Job expectations. In both surveys, the second most common reason for nonfiling was job expectations. In the earlier survey, about 14 percent of those surveyed indicated that they had not applied for UI benefits because they "have another job." It is important to understand the source of these job expectations. The 1993 survey aimed to achieve a more nuanced understanding of the job expectations of nonfilers. (Due to the size limitation of the CPS supplement, ETA could not add an additional question to probe job expectations of nonfilers. Such a question could have addressed the strength of these job expectations.) The key issue examined is whether individuals expect to be called back to work and therefore are not bothering to apply for UI benefits, or whether they simply are confident that they are going to find a job with a new employer soon. The 1993 survey found that of the total estimated 429,000 individuals who did not apply for UI benefits because they expected to have another job in 1993 (10.6 percent of all nonfilers), most of them (71 percent) expected to find a new job rather than to be called back to their former employer (29 percent). As Vroman argued in his 1991 study, job turnover—moving from one employer to another—seems to be an important reason for nonfiling.

Job losers are the most likely to expect to be recalled by their old employer–6.4 percent of nonfiling unemployed job losers in 1993 did not apply for UI benefits because they expected to be recalled by their last employer. Intuitively, one might expect this percentage to be higher because job losers have been laid off. However, recall that expectations are not a major explanatory factor for nonfiling among job losers.

Only 10 percent of nonfiling job leavers do not file because they expect to have a job soon, compared with 17 percent of nonfiling job losers. For job leavers, nearly all of their job expectations relate to new opportunities. Finally, reentrants were the least likely to be influenced by future job expectations, with only 5 percent of nonfiling reentrants identifying job expectations as their reason for nonfiling.

NONFILING WEAKENS BOTH the macroeconomic and microeconomic functions of the UI benefits system. If unemployed persons do not file for benefits, the UI system cannot help stabilize the economy or act as a wage replacement system for workers looking for jobs that suit their skills and experience. The two CPS supplements discussed in this article greatly expanded our knowledge of the crucial issue of nonfiling. The magnitude of nonfiling remains large and varies with economic conditions. Between 55 and 65 percent (depending on the business cycle) of experienced unemployed workers do not file for benefits. Most of these nonfilers either left their jobs voluntarily or are reentering the labor market and thus are likely to be ineligible for benefits. However, a substantial proportion of workers who were laid off from their jobs—the most likely group of unemployed workers to be eligible for benefits—also chose not to file for UI benefits.

This research effort was able to explain most of the reasons for nonfiling. Due to refinements in the questionnaire, the 1993 survey was able to explain 87 percent of all nonfiling behavior, compared with 80 percent in the earlier survey. The inability to complete a planned data match between administrative wage data and the survey respondents left some questions unanswered. Further research is needed to examine administrative monetary eligibility for nonfilers to check the accuracy of the perceptions of unemployed workers. In addition, such research could gauge the effect that the level of benefits and the benefit-replacement ratio have on nonfiling. The 1993 survey points out how difficult it is to test the accuracy of perceptions of monetary eligibility because of the difficulty of matching data sets with the surprisingly small samples of matches.

Despite this limitation, it would be useful to conduct further nonfiler surveys to account for changes that have occurred since 1993, particularly with the introduction of new reasons for unemployment included in the revised CPS, and with the likelihood of reduced motivation for nonfiling resulting from the introduction of telephone filing for UI benefits. Still, these two surveys provide a base of knowledge for policy discussion about UI recipiency rates and point toward ineligibility and job expectations as the major determinants of nonfiling. □

Notes

[1] For consistency, recipiency rates are defined in this article in the same way that they are in Wayne Vroman, *The Decline in Unemployment Insurance Claims Activity in the 1980s*, Unemployment Insurance Occasional Paper 91–2 (U.S. Department of Labor, January 1991). Thus, the recipiency rate is aggregate insured unemployment divided by total unemployment. This is a different measure than the insured unemployment rate (IUR), which equals continued claims (for regular program unemployment benefits) divided by total covered employment. (See note 3.)

[2] Advisory Council on Unemployment Compensation, *Report and Recommendations* (U.S. Department of Labor, February 1994).

[3] The Insured Unemployment Rate (IUR) is different from the "recipiency rate" referred to in this paper. IUR is the percentage of covered workers that are claiming UI insurance benefits. Over the years, the number of covered workers has increased (the denominator of the IUR), which has depressed the IUR. The recipiency rate is a "purer" measure of the coverage of the unemployed: it refers to the ratio of unemployed insured individuals to the total number of unemployed individuals.

[4] The Bureau of Labor Statistics produced a report on the 1993 survey, "Unemployment Insurance Recipients" on July 16, 1997. Wayne Vroman analyzed the 1989–90 survey in *The Decline in Unemployment Insurance Claims Activity in the 1980s*, Unemployment Insurance Occasional Paper 91–21, (U.S. Department of Labor, 1991).

[5] Daniel P. McMurrer and Amy Chasanov, "Trends in unemployment insurance benefits," *Monthly Labor Review*, September 1995, pp. 30–39.

[6] Rebecca M. Blank and David E. Card, "Recent Trends in Insured and Uninsured Unemployment: Is There an Explanation?," *Quarterly Journal of Economics*, November 1991, pp. 1157–89.

[7] Blank and Card remark on two major limitations of their estimates. First, the March Supplement to the CPS measures earnings in the previous calendar year, while UI eligibility is determined by the 4 quarters preceding the initial claim. Thus, Blank and Card do not have accurate data for those individuals who began their unemployment spell in the same calendar year as the survey. Second, the imputation misses several important elements of eligibility, including job search requirements or workers fired for cause.

[8] Gary Burtless and Daniel H. Saks, "The Decline in Insured Unemployment during the 1980s" (Brookings Institution, March 1984).

[9] Walter Corson and Walter Nicholson, *An Examination of the Declining UI Claims During the 1980s*, Unemployment Insurance Occasional Paper 88–3, September 1988.

[10] In the CPS, part of the sample is changed each month. Each monthly sample is divided into eight representative subsamples or "rotation groups." A given rotation group is interviewed for a total of 8 months, divided into two equal periods. Households are in the sample for 4 consecutive months, out of the sample for the following 8 consecutive months, and finally back in the sample for 4 consecutive months. In each monthly sample, one of the eight rotation groups is in the first month of enumeration, another rotation group is in the second month, and so on. Households in their fourth and eighth consecutive months are part of the "outgoing rotation groups." When supplements are administered, households in the outgoing rotation groups are eligible for the supplemental questions. For more information on the CPS, see *BLS Handbook of Methods*, Bulletin 2490 (Bureau of Labor Statistics, April 1997), pp. 4–14.

[11] The decision to conduct the first of the nonfiler studies flowed from Secretary Ann McLaughlin's seminar on unemployment insurance on June 27, 1988, which dealt with the issue of why so few unemployed individuals were then collecting UI benefits. The seminar presented the study by Corson and Nicholson (see note 9); during discussion, the issue of the extent of nonfiling was raised by business and labor representatives, who ultimately recommended a survey of nonfilers. Then-Commissioner of Labor Statistics Janet Norwood, who was attending the seminar as a member of the public, agreed to conduct the survey. See U.S. Department of Labor, *The Secretary's Seminar on Unemployment Insurance*, Unemployment Insurance Occasional Paper 89–1 (U.S. Department of Labor, 1989), pp. 54–55.

[12] Wayne Vroman, *The Decline in Unemployment Insurance Claims Activity in the 1980s*, Unemployment Insurance Occasional Paper 91–21, (U.S. Department of Labor, January 1991).

[13] Ibid.

[14] Ibid. Table 2 summarizes tables 3 and 3A from the study by Vroman; complete cross-tabulations from the 1989–90 supplement can be found there.

[15] Ibid.

[16] "I don't know" response rate may be higher because of a weakness in the research design. The Bureau of the Census surveys households (not individuals) for the CPS, and thus the person answering the supplemental questions may not be the actual unemployed individual residing in the house.

[17] See Christopher J. O'Leary and Stephen A. Wandner, *Unemployment Insurance in the United States: Analysis of Policy Issues* (W. E. Upjohn Institute for Employment Research, Kalamazoo MI, 1997), p. 676.

[18] There was a minor problem with the definition of "experienced unemployed." Unemployed individuals who responded "never worked full time 2 weeks or more" (as opposed to never worked) were included in the universe for supplemental questions. Thus, some of the cases are classified as new entrants based on their reason for unemployment.

[19] Most of the persons classified as reentrants are new entrants into the labor market. A small number were experienced part-time workers who could be classified as "new entrants" in the CPS in 1993.

[20] This is the ratio of column 1 in table 7 to column 1 in table 6.

Flexible schedules and shift work: replacing the '9-to-5' workday?

Flexible work hours have gained in prominence, as more than a quarter of all workers can now vary their schedules; however, there has been little change in the proportion who work a shift other than a regular daytime shift

Thomas M. Beers

Traditionally, much of the American labor force has worked in a structured environment, with the work schedule following a set pattern—what many people have termed the "9-to-5" workday. Recent studies show that employers are beginning to recognize that many workers prefer schedules that allow greater flexibility in choosing the times they begin and end their workday. Consequently, increasing numbers and proportions of full-time workers in the United States are able to opt for flexible work hours, allowing workers to vary the actual times they arrive and leave the work place. For some workers, however, the nature of their jobs requires that they work a schedule other than a regular day shift, what may be termed an "alternative shift."[1] Examples of such alternative shift workers are police officers, emergency room physicians, and assembly-line workers at a factory.

In contrast to the increasing proportion of workers with flexible work schedules, the incidence of shift work has not changed since the mid-1980s. If not for the sizable job gains in service occupations, the overall proportion of workers on shift work would have edged down in recent years.

Recent data on flexible work hours and shift work are from information collected in the May 1997 supplement to the Current Population Survey (CPS).[2] This article uses that supplement to examine both the incidence and trends in flexible work hours and alternative shift work and, also, the relationship between the jobs in which people work and the prevalence of these digressions from the more traditional "9-to-5" workday.

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Flexible work schedules

In 1997, more than 25 million workers, or 27.6 percent of all full-time wage and salary workers varied their work hours to some degree. Note that flexible schedule arrangements for many workers are probably informal, as indicated by data from the Bureau of Labor Statistics Employee Benefits Survey (EBS), in which employers provide information about employee access to various types of work-related benefits. The latest EBS data, from 1994–97, show that less than 6 percent of employees have *formal* flexible work schedule arrangements.[3]

CPS data show that the proportion of workers on flexible work schedules—either formal or informal—has more than doubled since 1985, when such data were first collected.[4] The increase in flexible work schedules since then has been widespread across demographic groups. The following tabulation shows the percent of workers, by age and race and Hispanic origin, who work flexible schedules:

	1985	1991	1997
Total, 16 years and older	12.4	15.1	27.6
Men	13.1	15.5	28.7
Women	11.3	14.5	26.2
Hispanic origin	8.9	10.6	18.4
Race and Hispanic origin:			
White	12.8	15.5	28.7
Black	9.1	12.1	20.1
Hispanic origin	8.9	10.6	18.4

Although there has been relatively little difference in the proportions of men and women with flexible schedules during the 1985–97 period, whites have been more likely than blacks or Hispanics to have flexible work schedules. (See table 1.)

Occupations. To some degree, these differences reflect the varying occupational distributions of each of the worker groups. Generally, jobs with higher frequencies of flexible hours are those in which work can be conducted efficiently, regardless of the workers' start and end times. For instance, flexible work hours are most common among workers in executive, administrative, and managerial occupations, and for those in sales occupations—42.4 percent and 41.0 percent, respectively. (See table 2.) The incidence of flexible work hours is lower for groups of workers in occupations in which the nature of the work dictates that it begin and end at set times, for example, nurses, teachers, police, firefighters, and certain manufacturing operations.

As stated, the unique occupational distributions of the various demographic groups affect the overall proportion of workers on flexible work schedules within these respective groups. For example, as can be seen above, flexible work hours are considerably more prevalent among whites than either blacks or Hispanics. At first glance, this is not surprising because whites are most likely to be in managerial and professional specialty occupations, in which flexible hours are most common. Furthermore, blacks and Hispanics are highly represented in the category of operators, fabricators, and laborers. Because of the nature of the work, historically, this category is one that fails to lend itself to the practice of flexible schedules.

Because flexible schedules appear to be closely associated with particular occupations, it is worth investigating whether the recent increases in the proportion of workers with flexible work schedules reflect an increase in employment in occupations with high occurrences of flexible work schedules or an increase in the availability of flexible work hours across occupations. A shift-share analysis was applied to determine the portion of the increase that was due to changes in occupational employment and the portion that was due simply to an increased incidence of flexible work hours. Less than 3 percentage points of the total increase were a result of shifts in occupational employment. This suggests, therefore, that the majority of the increase was spurred by the increased incidence of flexible work schedules within occupations; indeed, this phenomenon occurred in nearly every occupational category.

Race. In order to estimate how much of the difference in the rate of flexible work schedules between blacks and whites is accounted for by differences in occupations, a standardization was performed. This process showed that if blacks had the same occupational distribution as whites (at the most detailed level of occupational classification), then the rate of black workers on flexible work schedules would have been 20.5 percent, instead of 20.1 percent; the difference between the rates for whites and blacks would have been 7.9 percentage points instead of 8.6 percentage points. A similar analysis was performed in which the white rates of flexible work by occupation were applied to the black occupational distribution. Results show that, in each job category, if blacks were as likely as whites to be able to vary hours, then the overall black rate would rise to 24.4 percent, or 4.3 percentage points higher. This would have reduced the overall difference between blacks and whites to 4.3 percentage points. While even at the detailed level there may be differences in jobs held by blacks and whites, these findings suggest that factors other than occupational employment contribute to the disparity in access to flexible schedules.

A brief description of flexible work arrangements

There are several types of formal flexible work arrangements. One type is a "gliding schedule" that requires a specified number of hours of work each day but allows employees to vary the time of their arrival and departure, usually around an established set of mandatory "core hours." Other types of flexible work arrangements include variable-day and variable-week schedules that usually require a specified number of hours per pay period. These types of work schedules frequently are grouped under the umbrella term "flexitime." Under these plans, employees are permitted to choose the number of hours they wish to work each day or each week. Credit or compensatory time arrangements allow employees who accumulate overtime hours to apply those hours to future time off from work, rather than receiving the overtime rate for those hours. The presence of one or more of these arrangements in the workplace does not necessarily exclude the others; many can be used in conjunction with other flexible work arrangements. (For more information, see Atefah Sadri McCampbell, "Benefits Achieved Through Alternative Work Schedules," *Human Resource Planning*, 1996, Vol. 19.3.)

Table 1. Flexible schedules of full-time wage and salary workers by selected characteristics, May 1997

Characteristic	All workers			Men			Women		
	Total	With flexible schedules		Total	With flexible schedules		Total	With flexible schedules	
		Number	Percent		Number	Percent		Number	Percent
Age									
Total 16 years and older	90,549	25,031	27.6	52,073	14,952	28.7	38,476	10,079	26.2
16 to 19 years	1,640	339	20.7	1,050	177	16.9	590	161	27.4
20 years and older	88,909	24,692	27.8	51,023	14,774	29.0	37,886	9,918	26.2
20 to 24 years	8,462	1,923	22.7	4,968	1,111	22.4	3,494	812	23.2
25 to 34 years	25,208	7,161	28.4	14,721	4,231	28.7	10,486	2,931	27.9
35 to 44 years	26,755	7,781	29.1	15,434	4,730	30.6	11,321	3,051	26.9
45 to 54 years	19,596	5,355	27.3	10,806	3,118	28.9	8,790	2,237	25.4
55 to 64 years	7,778	2,129	27.4	4,431	1,334	30.1	3,347	796	23.8
65 years and older	1,110	344	31.0	662	251	38.0	448	93	20.7
16 to 24 years	10,102	2,262	22.4	6,018	1,288	21.4	4,084	973	23.8
25 to 54 years	71,559	20,296	28.4	40,961	12,078	29.5	30,598	8,218	26.9
55 years and older	8,888	2,473	27.8	5,094	1,585	31.1	3,794	888	23.4
Race and Hispanic origin									
White	75,683	21,698	28.7	44,495	13,186	29.6	31,188	8,512	27.3
Black	10,884	2,191	20.1	5,323	1,068	20.1	5,561	1,123	20.2
Hispanic origin	9,635	1,769	18.4	6,283	1,147	18.3	3,352	622	18.5
Marital status									
Never married	21,721	5,523	25.4	12,746	3,180	24.9	8,975	2,343	26.1
Married, spouse present	53,369	15,358	28.8	32,756	10,077	30.8	20,613	5,281	25.6
Other marital status	15,459	4,150	26.8	6,571	1,695	25.8	8,888	2,456	27.6
Presence and age of children									
Without own children under 18	55,251	14,824	26.8	31,266	8,596	27.5	23,985	6,228	26.0
With own children under 18	35,298	10,208	28.9	20,807	6,356	30.5	14,491	3,851	26.6
With own children 6 to 17	19,852	5,542	27.9	10,820	3,211	29.7	9,032	2,331	25.8
With own children under 6	15,446	4,666	30.2	9,986	3,146	31.5	5,459	1,520	27.8

NOTE: Data relate to the sole or principal job of full-time wage and salary workers who were at work during the survey reference week and exclude all self-employed persons, regardless of whether or not their businesses were incorporated. Data reflect revised population controls used in the Current Population Survey effective with the January 1997 estimates.

Industry. To a lesser degree, the prevalence of flexible work schedules also varied by industry. These schedules were more common among private sector employees than among those in the public sector (28.8 percent versus 21.7 percent) in 1997. In the public sector, Federal government employees (34.5 percent) were more likely than their counterparts in State government (29.4 percent) or local government (13.1 percent) to have a flexible schedule. The rate for local government workers reflects the fact that local governments provide services that are often rigidly scheduled. More than half of those employed in local governments work in the field of education, in which the nature of the work for most employees prohibits flexibility (only 7.6 percent of workers in education, the largest component of local government employment, could vary work hours). Within private industry, the proportion of workers with flexible schedules was higher in service-producing industries (31.7 percent) than in goods-producing industries (23.3 percent), reflecting the more rigid work hours in manufacturing, construction, and mining.

Shift work

Although most workers report usually working between the hours of 6 a.m. and 6 p.m., more than 15 million, or 16.8 percent of all full-time wage and salary workers, worked alternative shifts. The most prevalent alternative shifts were the evening shift (accounting for 4.6 percent of all full-time wage and salary workers), for which work hours typically fall between 2 p.m. and midnight, and irregular shifts (3.9 percent) for which employers schedule shifts to fit the needs of the business for a particular time. Other shifts worked included night shifts (3.5 percent) for which work hours fall between 9 p.m. and 8 a.m., and rotating shifts (2.9 percent) that change periodically from days to evenings or nights. (See table 3.)

As with flexible work schedules, the nature of the work is a major determinant of whether the worker is scheduled on an alternative shift. Hence, shift work is highly prevalent within certain occupations and industries and almost entirely absent from others. Alternative shifts were most common among

Table 2. Flexible schedules of full-time wage and salary workers by occupation and industry, May 1997

[Numbers in thousands]

Occupation and Industry	All workers			Men			Women		
	Total	With flexible schedules		Total	With flexible schedules		Total	With flexible schedules	
		Number	Percent		Number	Percent		Number	Percent
Occupation									
Managerial and professional specialty	27,384	10,651	38.9	13,882	6,407	46.2	13,502	4,245	31.4
Executive, administrative, and managerial	13,469	5,705	42.4	7,213	3,251	45.1	6,255	2,454	39.2
Professional specialty	13,915	4,947	35.5	6,668	3,156	47.3	7,247	1,791	24.7
Mathematical and computer scientists	1,308	772	59.0	887	549	61.9	421	223	53.0
Natural scientists	507	327	64.5	353	240	68.0	154	87	56.2
Teachers, college and university	494	320	64.7	330	224	68.0	164	95	58.2
Technical, sales, and administrative support	25,779	7,828	30.4	9,992	3,613	36.2	15,787	4,215	26.7
Technicians and related support	3,376	1,040	30.8	1,724	611	35.4	1,651	429	26.0
Sales occupations	9,001	3,687	41.0	5,106	2,315	45.3	3,895	1,372	35.2
Sales workers, retail and personal services	3,165	951	30.0	1,428	464	32.5	1,737	487	28.0
Administrative support, including clerical	13,402	3,101	23.1	3,162	687	21.7	10,240	2,414	23.6
Service occupations	9,313	1,906	20.5	4,754	831	17.5	4,559	1,075	23.6
Private household	308	125	40.5	21	16	[1]	287	109	37.8
Protective service	1,891	314	16.6	1,619	254	15.7	272	60	22.2
Service, except private household and protective	8,855	1,934	21.8	4,665	986	21.1	4,190	947	22.6
Food service	2,777	630	22.7	1,441	263	18.3	1,336	366	27.4
Health service	1,466	258	17.6	205	26	12.9	1,261	232	18.4
Cleaning and building service	2,000	326	16.3	1,252	208	16.6	749	117	15.7
Personal service	871	254	29.1	216	63	29.0	655	191	29.2
Precision production, craft, and repair	11,519	2,023	17.6	10,506	1,861	17.7	1,013	162	16.0
Mechanics and repairers	3,863	708	18.3	3,672	658	17.9	192	50	26.3
Construction trades	4,069	718	17.7	3,996	707	17.7	74	12	[1]
Other precision production, craft, and repair	3,587	596	16.6	2,839	497	17.5	748	99	13.3
Operators, fabricators, and laborers	14,812	2,156	14.6	11,388	1,815	15.9	3,424	342	10.0
Machine operators, assemblers, and inspectors	6,813	702	10.3	4,359	521	12.0	2,454	181	7.4
Transportation and material moving	4,351	961	22.1	4,064	914	22.5	287	47	16.3
Handlers, equipment cleaners, helpers, and laborers	3,648	494	13.5	2,965	379	12.8	683	114	16.7
Farming, forestry, and fishing	1,742	466	26.8	1,552	426	27.4	190	41	21.6
Industry									
Private sector	75,612	21,795	28.8	45,023	13,284	29.5	30,589	8,511	27.8
Goods-producing industries	25,925	6,033	23.3	19,458	4,640	23.8	6,466	1,393	21.5
Agriculture	1,492	448	30.0	1,265	373	29.5	227	74	32.8
Mining	541	122	22.6	473	106	22.4	68	16	[1]
Construction	5,389	1,218	22.6	4,974	1,086	21.8	415	132	31.8
Manufacturing	18,503	4,245	22.9	12,747	3,074	24.1	5,756	1,170	20.3
Durable goods	11,179	2,572	23.0	8,148	1,944	23.9	3,031	629	20.7
Nondurable goods	7,324	1,673	22.8	4,599	1,131	24.6	2,725	542	19.9
Service producing industries	49,687	15,763	31.7	25,565	8,644	33.8	24,122	7,118	29.5
Transportation and public utilities	6,088	1,669	27.4	4,518	1,215	26.9	1,570	454	28.9
Wholesale trade	3,969	1,281	32.3	2,854	979	34.3	1,115	302	27.1
Retail trade	12,111	3,745	30.9	6,812	1,988	29.2	5,299	1,757	33.2
Eating and drinking places	3,135	987	31.5	1,758	497	28.2	1,377	490	35.6
Finance, insurance, and real estate	5,857	2,096	35.8	2,288	1,028	44.9	3,569	1,068	29.9
Services	21,662	6,971	32.2	9,094	3,434	37.8	12,568	3,537	28.1
Private households	391	148	37.7	42	27	[1]	350	120	34.4
Business, automobile, and repair	5,060	1,607	31.8	3,319	1,118	33.7	1,740	489	28.1
Personal, except private household	1,627	522	32.1	749	227	30.3	878	295	33.7
Entertainment and recreation	1,051	397	37.8	619	231	37.3	432	167	38.5
Professional services	13,497	4,286	31.8	4,336	1,820	42.0	9,161	2,465	26.9
Forestry and fisheries	36	11	[1]	29	11	[1]	7	–	–
Government	14,937	3,236	21.7	7,050	1,668	23.7	7,887	1,568	19.9
Federal	2,828	977	34.5	1,621	535	33.0	1,208	442	36.6
State	4,125	1,214	29.4	1,856	606	32.7	2,270	608	26.8
Local	7,983	1,046	13.1	3,573	527	14.8	4,410	519	11.8

[1] Percent not shown where base is less than 75,000.

NOTE: Data relate to the sole or principal job of full-time wage and salary workers who were at work during the survey reference week and exclude all self-employed persons, regardless of whether or not their businesses were incorporated. Data reflect revised population controls used in the Current Population Survey effective with the January 1997 estimates. Dashes represent zero.

Table 3. Shift usually worked by full-time wage and salary workers by selected characteristics, May 1997

[Percent distribution]

Characteristic	Total workers (in thousands)	Regular daytime schedule	Alternative shift workers						
			Total	Evening shift	Night shift	Rotating shift	Split shift	Employer-arranged irregular schedules	Other shifts
Age and sex									
Total 16 years and older	90,549	82.9	16.8	4.6	3.5	2.9	0.4	3.9	1.4
16 to 19 years	1,640	66.4	32.9	12.5	5.0	4.0	.9	8.8	1.6
20 years and older	88,909	83.2	16.5	4.5	3.5	2.9	.4	3.8	1.4
20 to 24 years	8,462	75.7	23.7	7.6	5.3	3.3	.3	6.3	.9
25 to 34 years	25,208	82.8	16.7	4.7	3.5	3.2	.4	3.6	1.3
35 to 44 years	26,755	84.0	15.8	3.9	3.4	2.9	.4	3.7	1.4
45 to 54 years	19,596	85.2	14.6	3.9	3.1	2.6	.3	3.3	1.4
55 to 64 years	7,778	84.8	15.0	3.8	2.7	2.5	.6	3.3	2.1
65 years and older	1,110	83.8	16.2	3.8	2.1	2.0	.3	4.7	3.3
16 to 24 years	10,102	74.2	25.2	8.4	5.3	3.4	.4	6.7	1.0
25 to 54 years	71,559	83.9	15.8	4.2	3.3	2.9	.4	3.6	1.4
55 years and older	8,888	84.7	15.1	3.8	2.6	2.4	.6	3.5	2.2
Men	52,073	80.5	19.1	5.0	4.0	3.5	.4	4.4	1.7
Women	38,476	86.1	13.7	4.1	2.8	2.2	.3	3.1	1.0
Race and Hispanic origin									
White	75,683	83.6	16.1	4.3	3.2	2.9	.4	3.9	1.4
Black	10,884	78.5	20.9	6.5	5.5	3.2	.4	4.0	1.4
Hispanic origin	9,635	83.6	16.0	5.4	3.2	2.1	.3	3.8	1.2
Marital status and presence and age of children									
Men:									
Never married	12,746	77.1	21.9	7.0	4.4	3.2	.4	5.9	1.1
Married, spouse present	32,756	82.5	17.3	3.9	3.6	3.6	.4	3.9	1.9
Other marital status	6,571	77.3	22.1	6.6	5.1	3.6	.5	4.2	2.0
Without own children under 18	31,266	79.8	19.6	5.5	4.0	3.3	.4	4.6	1.6
With own children under 18	20,807	81.6	18.3	4.2	4.0	3.7	.5	4.1	1.8
With own children 6 to 17	10,820	82.8	17.1	3.5	3.7	3.9	.3	3.8	1.8
With own children under 6	9,986	80.3	19.7	5.0	4.3	3.5	.6	4.5	1.8
Women:									
Never married	8,975	79.8	19.8	6.2	4.0	3.2	.2	4.6	1.3
Married, spouse present	20,613	89.2	10.7	3.1	2.3	1.8	.3	2.3	.9
Other marital status	8,888	85.4	14.5	4.5	2.9	2.0	.3	3.6	1.1
Without own children under 18	23,985	85.0	14.7	4.6	2.6	2.4	.3	3.6	1.2
With own children under 18	14,491	87.9	12.0	3.4	3.2	1.8	.4	2.4	.8
With own children 6 to 17	9,032	88.4	11.4	2.7	3.4	1.9	.4	2.3	.7
With own children under 6	5,459	87.1	12.9	4.5	2.8	1.6	.3	2.6	1.0

NOTE: Data relate to the sole or principal job of full-time wage and salary workers who were at work during the survey reference week and exclude all self-employed persons, regardless of whether or not their businesses were incorporated. Data reflect revised population controls used in the Current Population Survey effective with the January 1997 estimates.

occupations that provide services that are needed at all hours—such as protective service (55.1 percent) and food service (42.0 percent)—and among those employed as operators, fabricators and laborers (27.0 percent). (See table 4.) In contrast, teachers, construction workers, and executives and administrators were among the least likely to work an alternative shift.

Similarly, the incidence of shift work was much greater among industries providing services used at all hours of the day as opposed to "9-to-5" industries. For instance, about 47.2 percent of the total labor force employed in eating and drinking places worked an alternative shift, as did 35.9 percent in transportation, and 25.8 percent in hospitals. Conversely, shift work was much less common in industries such as finance, insurance, real estate, construction, and agriculture—industries in which most work is done during the daytime.

Some goods-producing industries operate on extended production schedules and therefore had high proportions of workers on alternative shifts. In many of these industries, it is more costly to shut down the production process at the end of the day and restart the next morning than it is to simply operate on extended, and in some cases, around-the-clock production cycles.[4] Among industries with a high frequency of shift work were paper products (33.3 percent), automobiles (31.3 percent), and mining (24.8 percent).

Shift work occurred less frequently in the public sector than in the private sector, and varied little across Federal,

Table 4. Shift usually worked by full-time wage and salary workers by occupation and industry, May 1997

[Percent distribution]

Occupation and Industry	Total workers (in thousands)	Regular daytime schedule	Alternative shift workers						
			Total	Evening shift	Night shift	Rotating shift	Split shift	Employer-arranged irregular schedules	Other shifts
Occupation									
Managerial and professional specialty	27,384	90.4	9.4	1.7	1.3	1.7	0.3	2.9	1.6
Executive, administrative, and managerial	13,469	91.7	8.1	1.4	.7	1.7	.2	2.7	1.3
Professional specialty	13,915	89.1	10.7	2.0	1.7	1.6	.4	3.0	1.9
Mathematical and computer scientists	1,308	94.9	4.6	.2	.3	.6	–	1.8	1.6
Natural scientists	507	94.0	6.0	.9	1.0	–	–	1.5	2.5
Teachers, college and university	494	86.1	13.9	.6	.5	1.0	2.9	4.0	4.9
Technical, sales, and administrative support	25,779	86.2	13.5	3.5	2.1	2.6	.3	3.8	1.1
Technicians and related support	3,376	80.4	19.2	5.6	3.8	3.7	.2	4.2	1.5
Sales occupations	9,001	81.4	18.4	3.6	1.1	4.4	.3	7.0	1.9
Sales workers, retail and personal services	3,165	70.9	28.5	6.7	1.7	7.3	.6	10.6	1.5
Administrative support, including clerical	13,402	91.0	8.8	3.0	2.3	1.0	.2	1.6	.6
Service occupations	9,313	62.1	37.1	10.8	6.5	5.4	1.0	6.3	2.2
Private household	308	83.2	16.8	1.4	.8	.7	1.5	8.2	4.3
Protective service	1,891	44.4	55.1	11.3	13.2	16.3	.9	7.9	5.6
Service, except private household and protective	8,855	71.4	28.0	11.0	5.3	3.3	1.0	5.9	1.4
Food service	2,777	57.3	42.0	17.1	5.0	6.2	1.8	10.4	1.3
Health service	1,466	69.5	30.1	10.8	9.4	3.3	.6	4.6	1.1
Cleaning and building service	2,000	72.2	27.1	14.9	7.3	1.2	.6	2.2	.7
Personal service	871	73.2	26.4	5.1	5	4.7	.8	6.3	4.5
Precision production, craft, and repair	11,519	86.2	13.4	4.1	4.0	2.4	.2	2.1	.6
Mechanics and repairers	3,863	85.3	14.2	4.2	4.7	2.7	3	1.6	.6
Construction trades	4,069	95.3	4.4	.6	.9	.8	–	1.8	.3
Other precision production, craft, and repair	3,587	77.0	22.8	7.9	6.7	4.0	.2	3.0	1.0
Operators, fabricators, and laborers	14,812	72.5	27.0	7.7	7.4	4.3	.5	5.4	1.7
Machine operators, assemblers, and inspectors	6,813	73.4	26.2	10.1	8.4	4.6	.2	2.0	.7
Transportation and material moving	4,351	69.2	30.4	4.6	4.1	4.7	.9	12.3	3.9
Handlers, equipment cleaners, helpers, and laborers	3,648	74.8	24.6	7.0	9.3	3.4	.3	3.7	.8
Farming, forestry, and fishing	1,742	93.8	5.9	–	–	–	.6	4.1	.8
Industry									
Private sector	75,612	82.3	17.4	4.7	3.5	2.9	.4	4.3	1.4
Goods-producing industries	25,925	84.1	15.6	5.1	4.5	2.6	.2	2.1	.9
Agriculture	1,492	93.1	6.7	.3	.3	.7	.5	4.1	.8
Mining	541	74.6	25.4	4.8	2.3	12.5	.2	5	.5
Construction	5,389	95.9	3.7	.4	.2	.3	.1	2.1	.6
Manufacturing	18,503	80.2	19.4	6.9	6.2	3.2	.3	1.9	1
Durable goods	11,179	83.0	16.8	6.9	5	2.3	.2	1.6	.7
Nondurable goods	7,324	76.0	23.5	6.9	7.9	4.5	.3	2.4	1.5
Service producing industries	49,687	81.3	18.3	4.5	3.0	3.1	.5	5.4	1.7
Transportation and public utilities	6,088	73.8	25.8	4.2	3.3	4.5	.6	10.3	2.8
Wholesale trade	3,969	89.7	10.1	2.3	2.6	1.1	.1	2.7	1.3
Retail trade	12,111	71.1	28.4	7.5	3.6	5.9	.8	8.8	1.6
Eating and drinking places	3,135	51.9	47.2	16.3	5.4	8.7	2.0	12.6	1.8
Finance, insurance, and real estate	5,857	94.8	5.1	1.0	.7	.5	.0	1.5	1.4
Services	21,662	83.9	15.6	4.3	3.3	2.1	.5	3.7	1.6
Private households	391	78.9	21.1	1.9	2.2	2.3	1.1	10.2	3.4
Business, automobile, and repair	5,060	86.0	13.3	4.0	3.6	1.5	.2	2.7	1.3
Personal, except private household	1,627	74.9	24.3	7.7	4.1	3.4	.4	6.6	2.2
Entertainment and recreation	1,051	63.9	35.1	9.7	2.8	4.4	1.4	13.8	3.1
Professional services	13,497	86.0	13.7	3.6	3.3	2.0	.6	2.7	1.6
Forestry and fisheries	36	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Government	14,937	86.1	13.8	4.2	3.2	3.0	.3	1.9	1.3
Federal	2,828	85.4	14.4	4.3	5.3	1.8	.2	1.8	1.1
State	4,125	86.1	13.7	4.7	3.1	2.6	.3	1.8	1.2
Local	7,983	86.4	13.6	3.9	2.4	3.5	.3	1.9	1.5

[1] Percent not shown where base is less than 75,000.

NOTE: Data relate to the sole or principal job of full-time wage and salary workers who were at work during the survey reference week and exclude all self-employed persons, regardless of whether or not their businesses were incorporated. Data reflect revised population controls used in the Current Population Survey effective with the January 1997 estimates. Dashes represent zero.

Table 5. Shift usually worked on principal job by usual full-time wage and salary workers, by reason for working shift, May 1997

[Numbers in thousands]

Reason for working shift	Total	Shift worked					
		Evening shift	Night shift	Rotating shift	Split shift	Employer arranged irregular shift	Other shift
Total shift workers	15,183	4,192	3,156	2,649	350	3,523	1,313
Better child care arrangements	633	279	257	31	3	35	28
Better pay	920	350	330	81	14	105	41
Better arrangements for care of family members	423	114	214	17	5	38	34
Allows time for school	435	201	62	56	11	86	19
Easier commute, less traffic	109	51	27	4	2	12	13
Could not get any other job	866	383	237	75	12	138	20
Mandated by employer to meet transportation/ pollution program requirements	1,967	397	326	561	55	524	103
Nature of the job	7,767	1,710	1,084	1,610	204	2,354	805
Other reasons	1,912	661	581	195	41	224	211
Not reporting reasons	151	46	37	19	3	7	38

NOTE: Data relate to the sole or principal job of full-time wage and salary workers who were at work during the survey reference week and exclude all self-employed persons, regardless of whether or not their businesses were incorporated. Data reflect revised population controls used in the Current Population Survey effective with the January 1997 estimates.

State, and local governments. Within local government, however, the incidence of shift work varies widely by function. Nearly half of the local government employees in justice, public order, and safety functions worked alternative shifts; but only 4.5 percent of those employed in educational services worked an alternative shift.

The CPS supplement included a question intended to derive workers' main reason for working an alternative shift; the results support the notion that the occurrence of shift work is highly correlated with particular industries and occupations.[5] More than half of all full-time employees who worked an alternative shift did so because it was the "nature of the job." It is also apparent that very few of these workers chose to work one of these shifts for the purpose of obtaining greater monetary compensation or to alleviate nonwork conflicts. Only 6.1 percent of all alternative shiftworkers reported working a shift for better pay. About 4.1 percent worked an alternative shift for better childcare arrangements; and only a small fraction did so for an easier commute (0.7 percent) or because it allowed time for school (2.9 percent). Roughly 13.0 percent reported that they were on one of these shifts specifically because alternative shifts were mandated by their employer to meet transportation demand, management, or pollution abatement program requirements. A small percentage of shiftworkers (5.7 percent) worked an alternative shift because they were unable to find another job. (See table 5.)

As is the case with differences in flexible work schedules among workers, a portion of the differences among demographic groups in the incidence of shift work can be traced to the occupational distributions of the groups. As indicated in table 2 for example, men were more likely than women to work on an alternative shift: 19.1 percent versus 13.7 percent, respectively; a difference of 5.4 percentage points. A standardization analysis shows that if women had the same occupational distribution as men, then the overall proportion of women on alternative shifts would be 16.3 percent, reducing the difference between men and women to 2.8 percentage points. If the rates of alternative shift work by occupation for men are applied to the occupational distribution of women, then the difference in shift work rates falls to 1.5 percentage points. Thus, shift work is more common among men for two reasons: first, men are more likely then women to choose occupations in which shift work is common; and, on the same job, men are typically more likely than women to work an alternative shift.

Among other major groups, workers who had never been married were employed on one of these shifts more often than married workers (21.0 percent versus 14.8 percent, respectively), and a greater proportion of blacks (20.9 percent) worked alternative shifts than either whites (16.1 percent) or Hispanics (16.0 percent). Another shift-share analysis shows that only a small proportion of the disparity in alternative shift work between blacks and whites can be explained by different occupational groupings; on the same jobs, it is usually the case that more blacks than whites work an alternative shift. In addition, the incidence of alternative shift work varied to some degree by age: nearly one-third of employed teenagers worked an alternative shift. This is not surprising as daytime school commitments prevent many teenagers from working during normal business hours. The prevalence of shift work declines with age to a low of 14.6 percent for workers aged 45 to 54 years. (See table 3.)

In general, the proportion of workers on alternative shifts has changed very little for all of the major demographic groups over the last 12 years. The following tabulation shows the percent working alternative shifts, 1985–97:

	1985	*1991*	*1997*
Total, 16 years and older	15.9	17.8	16.8
Men	17.8	20.1	19.1
Women	13.0	14.6	13.7
Race and Hispanic origin:			
White	15.3	17.1	16.1
Black	19.9	23.3	20.9
Hispanic origin	15.5	19.1	16.0

Part-time workers. Alternative shift work was much more common among workers who usually worked part time than among full-time workers. Of the 20.3 million part-time wage and salary workers, roughly 7.3 million, or 36.0 percent, usually worked an alternative shift on their primary job. The majority of these workers usually worked an evening shift or an irregularly scheduled shift. In many cases, part-timers are students, parents, or persons with other daytime commitments that conflict with a regular "9-to-5" schedule.[6] Another explanation for the high rates of shift work among part-timers is that a sizable proportion of businesses maintain operating hours that extend past the traditional 8-hour day; part-time workers are needed to fill this gap. While the proportion of full-time wage and salary workers who worked alternative shifts was unchanged between May 1991 and May 1997, the proportion of part-timers on alternative shifts fell from 45.6 percent to 36.0 percent over the period.

THE "9-TO-5" WORKDAY does not appear to be in jeopardy of fading from its prominence in U.S. workplaces; yet the data do suggest that the rigidity of those hours continues to relax. In May 1997, about one-fourth of all full-time wage and salary workers could vary the times they began or ended work, nearly double the proportion in May 1985. In contrast, the proportions working alternative shifts—something other than a regular daytime shift—have not increased over the period.

Clearly, the prevalence of both flexible work schedules and alternative shifts is linked to the nature of the work involved in a particular job or industry. However, this explains only a portion of the variation in the frequency of these types of work schedules across demographic groups. Even within the most detailed occupational groupings, sizable differences remain, in both the rates of alternative shift work and flexible work hours among the various demographic groups, differences that the available data do not completely explain. □

Notes

[1] Throughout this article the two terms "alternative shift" and "shift work" refer to all work schedules that do not conform to the regular daytime schedule, for which work hours typically fall between 6 a.m. and 6 p.m.

[2] The source of the data used in this article is the May 1997 supplement to the Current Population Survey (CPS). The CPS is a monthly survey of about 50,000 households, conducted by the Bureau of the Census for the Bureau of Labor Statistics. The employment estimates for the period under study have been affected by a number of factors. Official data for 1990 and later years incorporate 1990 census-based population controls, adjusted for the estimated undercount, whereas prior data are based on 1980 census-based population controls, for which no such adjustment has been made.

In addition, data for January 1994 and forward are not strictly comparable with data for earlier years because of the introduction of a major redesign of the CPS questionnaire and collection methodology. For additional information on the redesign, see "Revisions in the Current Population Survey Effective January 1994," in the February 1994 issue of the BLS periodical *Employment and Earnings*.

[3] U.S. Bureau of Labor Statistics, *Employee Benefits Survey*, Bulletins 2517 (1999); 2507 (1999); and 2477 (1996).

[4] The actual wording of the question on flexible work schedules was altered on the most recent May supplement to the Survey. Specifically, the word "flexitime" was removed in the description of flexible work hours.

[4] Earl F. Mellor, "Shift work and flexitime: how prevalent are they?" *Monthly Labor Review*, November 1986, pp. 14–20.

[5] Those who responded that they work a schedule other than a regular daytime schedule were asked, "What is the main reason why you work this type of shift?"

[6] Data from the Current Population Survey show that among workers who usually work part time, roughly 55.9 percent work part time due to one of the following reasons: 1) childcare problems; 2) other family or personal obligations; 3) attending school or training. These data are 1997 annual averages and appear in table 20 of the January 1998 issue of the BLS periodical *Employment and Earnings*.

Paradigm for the new economy

Are we seeing a sea change in the way the U.S. economy operates at the dawn of this new century? W. Michael Cox and Richard Alm, in an essay published in the *1999 Annual Report* of the Federal Reserve Bank of Dallas, present their case for a "New Economy." In this economy, they argue, the old guiding tenets that formerly served as buttresses against such elements as inflation or unemployment find themselves reshaped into new rules, new principles.

Specifically, traditional economic theories that have held sway for the past half-century now fail to explain the radical economic changes of the 1990s. Indeed, say Cox and Alm, during the past two decades, a new economy has emerged from a spurt of invention and innovation, led by the microprocessor. This tiny creation, leading our way into the 21st century, is a symbol of the paradigmatic shift signaling an economic era where "knowledge is more important to economic success than money or machinery. Modern tools facilitate the application of brainpower, not muscle or machine power, opening all sectors of the economy to productivity gains. . . . The most fair-reaching implication of the New Economy centers on the trade-off between growth and inflation."

The invention of the microprocessing chip and its attendant devices have made possible such disparate advances as telecommuting, laparoscopic surgery, and structures equipped with synthetic "nervous systems," to name just three. The American workforce, while most of its members continue to commute in real time, contains an increasingly sizable cohort which commutes in virtual time: Working from a home complete with the requisite modem, FAX, and computing connections becomes easier and cheaper than slogging in to the job. The authors write: "Roughly 20 million Americans now telecommute, working at least one day per month from home during normal business hours. Studies show that telecommuting saves businesses roughly $10,000 annually for a worker earning $44,000—a savings in lost work time and employee retention costs, plus gains in worker productivity."

The invention of the microchip also has enhanced surgical procedures. The use of the laparoscope—now augmented with a tiny digital camera, fiber-optic cables, and video monitor—often allows surgeons to perform surgery through small incisions to the body. Thus, the more invasive and dangerously radical cutting of the older surgical techniques is avoided, leading to faster recovery times and shorter hospital stays. Moreover, "the 85 percent reduction in lost work time isn't the only savings. The procedure itself costs roughly 10 percent less in hospital and physician fees."

Turning from the microscopic to a scale much grander, we see the same microchip technology employed in "smart structures," which are then embedded in the Nation's largest infrastructures. Monitoring the health of large pieces of the economic infrastructure—bridges, dams, buildings, tunnels, and so forth—is a never-ending task. The mode of doing so in the past involved periodically drilling holes in each one to analyze its core sample, "a labor-intensive proposition," according to Cox and Alm. "But by equipping them with a fiber-optic 'nervous-system,' data can be collected continuously on structure strain, temperature, vibration, magnetic fields, cracks, and road-salt corrosion and penetration." With this type of constant monitoring, the preventive nature of repair and maintenance becomes simpler, and more cost-effective than ever before. Obviously, safety, too, is improved.

In the realm of commerce, technology continues to virtually revolutionize the economy. Who today has not heard of "e-commerce"? While it remains to be seen how new virtual marketplaces will ultimately affect trade and society overall, the authors predict that by 2003, the cyberspace marketplace will amount to $1.7 trillion, up by an order of magnitude from its nascent figure of $151 billion in 1999. Further, they note that "consumer purchases get most of the attention, but four-fifths of e-commerce involves business-to-business transactions." At the most fundamental level, "electronic commerce alters the economy's cost structure by intensifying competition. The idea of rivalry among sellers driving down prices has a long pedigree in economics, dating back at least as far as Adam Smith." They point out that precedent exists for technology as an agent in promoting competition. The canals and railroads of the 19th century and the air transport and interstate highways of the 20th century certainly resulted in "expanded customer bases" and decreased costs of bringing goods and services to market.

Cox and Alm conclude the essay by stating their belief that the new economic paradigm "has brought us the best of all worlds—innovative products, new jobs, high profits, soaring stocks. And low inflation." Only time will tell whether this shift in economic thinking will prevail or if it is merely a technological blip on history's radar screen. □

We are interested in your feedback on this column. Write to: Executive Editor, *Monthly Labor Review*, Bureau of Labor Statistics, Washington, DC 20212, or e-mail MLR@bls.gov

A more secure future

Securing Prosperity: The American Labor Market: How It Has Changed and What to Do About It. By Paul Osterman. Princeton University Press, 1999, 222 pp. $24.95.

As the longest peacetime economic expansion continues, economists generally concede that all workers are not sharing equally in this new prosperity. Certain participants in the "new economy" seem to be benefiting, while others find their incomes stagnating. Record stock prices have not been matched by increases in wage rates and higher company earnings have not automatically translated into higher workers' salaries. These discrepancies are the subject of Paul Osterman's book, *Securing Prosperity.*

The role of institutions plays a major component in the book. His analysis and problem resolutions are tinted by his faith in the importance and predominance of institutions as a major player in labor markets, including big business, big government, and big labor. Both problems and solutions are defined within the context of institutions. In Osterman's view, each of these institutions is partially responsible for problems in the current labor market and each have a role in the solution to those problems. Institutions become the counterweight to the vagaries of the marketplace.

In general, Osterman defines three main problems in today's labor market: increasing income discrepancies between economic "winners" and "losers", greater job insecurity among workers, and a deficit of quality jobs. The book begins by discussing how the American economy has changed since World War II. While acknowledging that not all firms approached labor in the same manner, he feels that business and labor had a web of mutual obligations that defined the job market of the 1950s through the 1970s. The collapse of this web then becomes the fundamental cause of current problems. While the web collapsed for several reasons, the result was a loosening of the tie that bound workers to their employers. Companies gained new advantages over workers as power shifted from the worker to their employer.

Demonstrating the results of this collapse by citing a variety of statistical evidence, including several BLS surveys, Osterman argues that many workers are suffering from these looser attachments between employees and their employers. While acknowledging that changes in the workplace have benefited some workers, he rejects the notion that the changes have resulted in a "win-win" proposition for employees and firms. In general, he feels that new intermediaries must be created to replace the collapsed web of obligations shared between firms and their workers.

Having defined deteriorating labor market conditions for workers, he then devoted the rest of the book to discussing needed changes in labor policy. These new policies would be designed to build what he describes as "stronger labor market institutions." Osterman admits that past institutions such as Federal job training and the U.S. Employment Service have had a mixed record of results, yet he continues to have faith that institutional reform is the cornerstone to redressing shortcomings in the present labor market.

The new intermediaries would support a more mobile workforce and redress the balance of power between firms and their employees. Both government and non-government bodies may potentially house these new intermediaries. For example, he envisions a new type of worker association. The hybrid associations would more closely resemble current professional associations than current labor unions but would include representing workers with employers, and would include a broad range of professional and craft employees.

Osterman's faith in institutions is impressive, but it is unclear whether the majority of American workers share this belief. Declining union membership and general sentiment against "big government" begs the question whether workers see government and labor institutions as the solution to their problems. Osterman himself admits that the current political climate precludes the opportunity for direct action at the national level, and it is doubtful if the constituency exists to form new labor policies. Thus, his call to action may go unheeded for the present.

In fact, only one institution, the courts, seems too be the present solution of choice for workers' grievances against their employers. The loosening of ties between workers and their employers outlined in the book may have inadvertently given workers a greater propensity to seek redress through the administrative law and court system, rather than depend on changes in national policies. Ironically, in the end, business itself may turn to the political system for institutional relief, much as they did when the workers' compensation system was instituted to offset numerous legal actions from individual employees. In this context, the book may serve as a better guide to future corporate action than for the workers it seeks to serve.

—Michael Wald

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This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics: series on labor force; employment; unemployment; labor compensation; consumer, producer, and international prices; productivity; international comparisons; and injury and illness statistics. In the notes that follow, the data in each group of tables are briefly described; key definitions are given; notes on the data are set forth; and sources of additional information are cited.

General notes

The following notes apply to several tables in this section:

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect on the data of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might prevent short-term evaluation of the statistical series. Tables containing data that have been adjusted are identified as "seasonally adjusted." (All other data are not seasonally adjusted.) Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years.

Seasonally adjusted data appear in tables 1–14, 16–17, 39, and 43. Seasonally adjusted labor force data in tables 1 and 4–9 were revised in the February 2000 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1, 12–14 and 16–17 were revised in the July 1999 *Review* and reflect the experience through March 1999. A brief explanation of the seasonal adjustment methodology appears in "Notes on the data."

Revisions in the productivity data in table 45 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month-to-month and quarter-to-quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All-Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data—such as the "real" earnings shown in table 14—are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current-dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of $3 and a current price index number of 150, where 1982 = 100, the hourly rate expressed in 1982 dollars is $2 ($3/150 x 100 = $2). The $2 (or any other resulting values) are described as "real," "constant," or "1982" dollars.

Sources of information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. Definitions of each series and notes on the data are contained in later sections of these Notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods*, Bulletin 2490. Users also may wish to consult *Major Programs of the Bureau of Labor Statistics*, Report 919. News releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule appearing on the back cover of this issue.

More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in the Bureau's monthly publication, *Employment and Earnings*. Historical unadjusted and seasonally adjusted data from the household survey are available on the Internet:

http://stats.bls.gov/cpshome.htm

Historically comparable unadjusted and seasonally adjusted data from the establishment survey also are available on the Internet:

http://stats.bls.gov/ceshome.htm

Additional information on labor force data for areas below the national level are provided in the BLS annual report, *Geographic Profile of Employment and Unemployment*.

For a comprehensive discussion of the Employment Cost Index, see *Employment Cost Indexes and Levels, 1975–95*, BLS Bulletin 2466. The most recent data from the Employee Benefits Survey appear in the following Bureau of Labor Statistics bulletins: *Employee Benefits in Medium and Large Firms; Employee Benefits in Small Private Establishments;* and *Employee Benefits in State and Local Governments*.

More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report* and *Producer Price Indexes*. For an overview of the 1998 revision of the CPI, see the December 1996 issue of the *Monthly Labor Review*. Additional data on international prices appear in monthly news releases.

Listings of industries for which productivity indexes are available may be found on the Internet:

http://stats.bls.gov/iprhome.htm

For additional information on international comparisons data, see *International Comparisons of Unemployment*, BLS Bulletin 1979.

Detailed data on the occupational injury and illness series are published in *Occupational Injuries and Illnesses in the United States, by Industry*, a BLS annual bulletin.

Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment, and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

Symbols

n.e.c. = not elsewhere classified.
n.e.s. = not elsewhere specified.
p = preliminary. To increase the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.
r = revised. Generally, this revision reflects the availability of later data, but also may reflect other adjustments.

Comparative Indicators

(Tables 1–3)

Comparative indicators tables provide an overview and comparison of major BLS statistical series. Consequently, although many of the included series are available monthly, all measures in these comparative tables are presented quarterly and annually.

Labor market indicators include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-to-population ratio, and unemployment rates for major demographic groups based on the Current Population ("household") Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonfarm payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in table 2.

Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in consumer prices for all urban consumers; producer prices by stage of processing; overall prices by stage of processing; and overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

Alternative measures of wage and compensation rates of change, which reflect the overall trend in labor costs, are summarized in table 3. Differences in concepts and scope, related to the specific purposes of the series, contribute to the variation in changes among the individual measures.

Notes on the data

Definitions of each series and notes on the data are contained in later sections of these notes describing each set of data.

Employment and Unemployment Data

(Tables 1; 4–20)

Household survey data

Description of the series

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 50,000 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

Employed persons include (1) all those who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

Unemployed persons are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff are also counted among the unemployed. **The unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population. Persons **not in the labor force** are those not classified as employed or unemployed. This group includes discouraged workers, defined as persons who want and are available for a job and who have looked for work sometime in the past 12 months (or since the end of their last job if they held one within the past 12 months), but are not currently looking, because they believe there are no jobs available or there are none for which they would qualify. The **civilian noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy. The **civilian labor force participation** rate is the proportion of the civilian noninstitutional population that is in the labor force. The **employment-population ratio** is employment as a percent of the civilian noninstitutional population.

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the intercensal years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on the various data series appears in the Explanatory Notes of *Employment and Earnings*.

Labor force data in tables 1 and 4–9 are seasonally adjusted. Since January 1980, national labor force data have been seasonally adjusted with a procedure called X-11 ARIMA which was developed at Statistics Canada as an extension of the standard X-11 method previously used by BLS. A detailed description of the procedure appears in the X-11 *ARIMA Seasonal Adjustment Method,* by Estela Bee Dagum (Statistics Canada, Catalogue No. 12-564E, January 1983).

At the beginning of each calendar year, historical seasonally adjusted data usually are revised, and projected seasonal adjustment factors are calculated for use during the January–June period. The historical seasonally adjusted data usually are revised for only the most recent 5 years. In July, new seasonal adjustment factors, which incorporate the experience through June, are produced for the July–December period, but no revisions are made in the historical data.

Revisions in the household survey

Data beginning in 2000 are not strictly comparable with data for 1999 and earlier years because of the introduction of revised population controls. Additional information appears in the February 2000 issue of *Employment and Earnings*.

FOR ADDITIONAL INFORMATION on national household survey data, contact the Division of Labor Force Statistics: (202) 691–6378.

Establishment survey data

Description of the series

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by about 390,000 establishments representing all industries except agriculture. Industries are classified in accordance with the 1987 *Standard Industrial Classification (SIC) Manual.* In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

An **establishment** is an economic unit which produces goods or services (such as a factory or store) at a single location and is engaged in one type of economic activity.

Employed persons are all persons who received pay (including holiday and sick pay) for any part of the payroll period including the 12th day of the month. Persons holding more than one job (about 5 percent of all persons in the labor force) are counted in each establishment which reports them.

Production workers in manufacturing include working supervisors and nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 11–16 include production workers in manufacturing and mining;

construction workers in construction; and nonsupervisory workers in the following industries: transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for about four-fifths of the total employment on private nonagricultural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

Hours represent the average weekly hours of production or nonsupervisory workers for which pay was received, and are different from standard or scheduled hours. **Overtime hours** represent the portion of average weekly hours which was in excess of regular hours and for which overtime premiums were paid.

The **Diffusion Index** represents the percent of industries in which employment was rising over the indicated period, plus one-half of the industries with unchanged employment; 50 percent indicates an equal balance between industries with increasing and decreasing employment. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. Data are centered within the span. Table 17 provides an index on private nonfarm employment based on 356 industries, and a manufacturing index based on 139 industries. These indexes are useful for measuring the dispersion of economic gains or losses and are also economic indicators.

Notes on the data

Establishment survey data are annually adjusted to comprehensive counts of employment (called "benchmarks"). The latest adjustment, which incorporated March 1998 benchmarks, was made with the release of May 1999 data, published in the July 1999 issue of the *Review*. Coincident with the benchmark adjustment, historical seasonally adjusted data were revised to reflect updated seasonal factors and refinement in the seasonal adjustment procedures. Unadjusted data from April 1998 forward and seasonally adjusted data from January 1995 forward are subject to revision in future benchmarks.

Revisions in State data (table 11) occurred with the publication of January 2000 data.

Beginning in June 1996, the BLS uses the X-12 ARIMA methodology to seasonally adjust establishment survey data. This procedure, developed by the Bureau of the Census, controls for the effect of varying survey intervals (also known as the 4- versus 5-week effect), thereby providing improved measurement of over-the-month changes and underlying economic trends. Revisions of data, usually for the most recent 5-year period, are made once a year coincident with the benchmark revisions.

In the establishment survey, estimates for the most recent 2 months are based on incomplete returns and are published as preliminary in the tables (12–17 in the *Review*). When all returns have been received, the estimates are revised and published as "final" (prior to any benchmark revisions) in the third month of their appearance. Thus, December data are published as preliminary in January and February and as final in March. For the same reasons, quarterly establishment data (table 1) are preliminary for the first 2 months of publication and final in the third month. Thus, fourth-quarter data are published as preliminary in January and February and as final in March.

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9–20.

FOR ADDITIONAL INFORMATION on establishment survey data, contact the Division of Monthly Industry Employment Statistics: (202) 691–6555.

Unemployment data by State

Description of the series

Data presented in this section are obtained from the Local Area Unemployment Statistics (LAUS) program, which is conducted in cooperation with State employment security agencies.

Monthly estimates of the labor force, employment, and unemployment for States and sub-State areas are a key indicator of local economic conditions, and form the basis for determining the eligibility of an area for benefits under Federal economic assistance programs such as the Job Training Partnership Act. Seasonally adjusted unemployment rates are presented in table 10. Insofar as possible, the concepts and definitions underlying these data are those used in the national estimates obtained from the CPS.

Notes on the data

Data refer to State of residence. Monthly data for all States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates are revised to new population controls, usually with publication of January estimates, and benchmarked to annual average CPS levels.

FOR ADDITIONAL INFORMATION on data in this series, call (202) 691–6392 (table 10) or (202) 691–6559 (table 11).

Compensation and Wage Data

(Tables 1–3; 21–27)

COMPENSATION AND WAGE DATA are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It uses a fixed market basket of labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor.

Statistical series on total compensation costs, on wages and salaries, and on benefit costs are available for private nonfarm workers excluding proprietors, the self-employed, and household workers. The total compensation costs and wages and salaries series are also available for State and local government workers and for the civilian nonfarm economy, which consists of private industry and State and local government workers combined. Federal workers are excluded.

The Employment Cost Index probability sample consists of about 4,400 private nonfarm establishments providing about 23,000 occupational observations and 1,000 State and local government establishments providing 6,000 occupational observations selected to represent total employment in each sector. On average, each reporting unit provides wage and compensation information on five well-specified occupations. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Beginning with June 1986 data, fixed employment weights from the 1980 Census of Population are used each quarter to calculate the civilian and private indexes and the index for State and local governments. (Prior to June 1986, the employment weights are from the 1970 Census of Population.) These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensa-

tion, not employment shifts among industries or occupations with different levels of wages and compensation. For the bargaining status, region, and metropolitan/nonmetropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1980 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

Total compensation costs include wages, salaries, and the employer's costs for employee benefits.

Wages and salaries consist of earnings before payroll deductions, including production bonuses, incentive earnings, commissions, and cost-of-living adjustments.

Benefits include the cost to employers for paid leave, supplemental pay (including nonproduction bonuses), insurance, retirement and savings plans, and legally required benefits (such as Social Security, workers' compensation, and unemployment insurance).

Excluded from wages and salaries and employee benefits are such items as payment-in-kind, free room and board, and tips.

Notes on the data

The Employment Cost Index for changes in wages and salaries in the private nonfarm economy was published beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (June 1981=100) are available on the Internet:

http://stats.bls.gov/ecthome.htm

FOR ADDITIONAL INFORMATION on the Employment Cost Index, contact the Office of Compensation Levels and Trends: (202) 691–6199.

Employee Benefits Survey

Description of the series

Employee benefits data are obtained from the Employee Benefits Survey, an annual survey of the incidence and provisions of selected benefits provided by employers. The survey collects data from a sample of approximately 9,000 private sector and State and local government establishments. The data are presented as a percentage of employees who participate in a certain benefit, or as an average benefit provision (for example, the average number of paid holidays provided to employees per year). Selected data from the survey are presented in table 25 for medium and large private establishments and in table 26 for small private establishments and State and local government.

The survey covers paid leave benefits such as holidays and vacations, and personal, funeral, jury duty, military, family, and sick leave; short-term disability, long-term disability, and life insurance; medical, dental, and vision care plans; defined benefit and defined contribution plans; flexible benefits plans; reimbursement accounts; and unpaid family leave.

Also, data are tabulated on the incidence of several other benefits, such as severance pay, child-care assistance, wellness programs, and employee assistance programs.

Definitions

Employer-provided benefits are benefits that are financed either wholly or partly by the employer. They may be sponsored by a union or other third party, as long as there is some employer financing. However, some benefits that are fully paid for by the employee also are included. For example, long-term care insurance and postretirement life insurance paid entirely by the employee are included because the guarantee of insurability and availability at group premium rates are considered a benefit.

Participants are workers who are covered by a benefit, whether or not they use that benefit. If the benefit plan is financed wholly by employers and requires employees to complete a minimum length of service for eligibility, the workers are considered participants whether or not they have met the requirement. If workers are required to contribute towards the cost of a plan, they are considered participants only if they elect the plan and agree to make the required contributions.

Defined benefit pension plans use predetermined formulas to calculate a retirement benefit (if any), and obligate the employer to provide those benefits. Benefits are generally based on salary, years of service, or both.

Defined contribution plans generally specify the level of employer and employee contributions to a plan, but not the formula for determining eventual benefits. Instead, individual accounts are set up for participants, and benefits are based on amounts credited to these accounts.

Tax-deferred savings plans are a type of defined contribution plan that allow participants to contribute a portion of their salary to an employer-sponsored plan and defer income taxes until withdrawal.

Flexible benefit plans allow employees to choose among several benefits, such as life insurance, medical care, and vacation days, and among several levels of coverage within a given benefit.

Notes on the data

Surveys of employees in medium and large establishments conducted over the 1979–86 period included establishments that employed at least 50, 100, or 250 workers, depending on the industry (most service industries were excluded). The survey conducted in 1987 covered only State and local governments with 50 or more employees. The surveys conducted in 1988 and 1989 included medium and large establishments with 100 workers or more in private industries. All surveys conducted over the 1979–89 period excluded establishments in Alaska and Hawaii, as well as part-time employees.

Beginning in 1990, surveys of State and local governments and small private establishments were conducted in even-numbered years, and surveys of medium and large establishments were conducted in odd-numbered years. The small establishment survey includes all private nonfarm establishments with fewer than 100 workers, while the State and local government survey includes all governments, regardless of the number of workers. All three surveys include full- and part-time workers, and workers in all 50 States and the District of Columbia.

FOR ADDITIONAL INFORMATION on the Employee Benefits Survey, contact the Office of Compensation Levels and Trends on the Internet:

http://stats.bls.gov/ebshome.htm

Work stoppages

Description of the series

Data on work stoppages measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of work time lost because of stoppage. These data are presented in table 27.

Data are largely from a variety of published sources and cover only establishments directly involved in a stoppage. They do not measure the indirect or secondary effect of stoppages on other establishments whose employees are idle owing to material shortages or lack of service.

Definitions

Number of stoppages: The number of strikes and lockouts involving 1,000 work-

ers or more and lasting a full shift or longer.

Workers involved: The number of workers directly involved in the stoppage.

Number of days idle: The aggregate number of workdays lost by workers involved in the stoppages.

Days of idleness as a percent of estimated working time: Aggregate workdays lost as a percent of the aggregate number of standard workdays in the period multiplied by total employment in the period.

Notes on the data

This series is not comparable with the one terminated in 1981 that covered strikes involving six workers or more.

FOR ADDITIONAL INFORMATION on work stoppages data, contact the Office of Compensation and Working Conditions: (202) 691–6282, or the Internet:

http://stats.bls.gov/cbahome.htm

Price Data

(Tables 2; 28–38)

PRICE DATA are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period—1982 = 100 for many Producer Price Indexes, 1982–84 = 100 for many Consumer Price Indexes (unless otherwise noted), and 1990 = 100 for International Price Indexes.

Consumer Price Indexes

Description of the series

The **Consumer Price Index** (CPI) is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI-W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all-urban consumer index (CPI-U), introduced in 1978, is representative of the 1993–95 buying habits of about 87 percent of the noninstitutional population of the United States at that time, compared with 32 percent represented in the CPI-W. In addition to wage earners and clerical workers, the CPI-U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 23,000 retail establishments and 5,800 housing units in 87 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 14 major urban centers are presented in table 29. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are meaured for the CPI-U. A rental equivalence method replaced the asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of home-ownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes. An updated CPI-U and CPI-W were introduced with release of the January 1987 and January 1998 data.

FOR ADDITIONAL INFORMATION on consumer prices, contact the Division of Consumer Prices and Price Indexes: (202) 691–7000.

Producer Price Indexes

Description of the series

Producer Price Indexes (PPI) measure average changes in prices received by domestic producers of commodities in all stages of processing. The sample used for calculating these indexes currently contains about 3,200 commodities and about 80,000 quotations per month, selected to represent the movement of prices of all commodities produced in the manufacturing; agriculture, forestry, and fishing; mining; and gas and electricity and public utilities sectors. The stage-of-processing structure of PPI organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI organizes products by similarity of end use or material composition. The industry and product structure of PPI organizes data in accordance with the Standard Industrial Classification (SIC) and the product code extension of the SIC developed by the U.S. Bureau of the Census.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

Since January 1992, price changes for the various commodities have been averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1987. The detailed data are aggregated to obtain indexes for stage-of-processing groupings, commodity groupings, durability-of-product groupings, and a number of special composite groups. All Producer Price Index data are subject to revision 4 months after original publication.

FOR ADDITIONAL INFORMATION on producer prices, contact the Division of Industrial Prices and Price Indexes: (202) 691–7705.

International Price Indexes

Description of the series

The **International Price Program** produces monthly and quarterly export and import price indexes for nonmilitary goods traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts; it includes corporations, businesses, and individuals, but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents.

The product universe for both the import and export indexes includes raw materials, agricultural products, semifinished manufactures, and finished manufactures, including both capital and consumer goods. Price data for these items are collected primarily by mail questionnaire. In nearly all cases, the data are collected directly from the exporter or importer, although in a few cases, prices are obtained from other sources.

To the extent possible, the data gathered refer to prices at the U.S. border for exports

and at either the foreign border or the U.S. border for imports. For nearly all products, the prices refer to transactions completed during the first week of the month. Survey respondents are asked to indicate all discounts, allowances, and rebates applicable to the reported prices, so that the price used in the calculation of the indexes is the actual price for which the product was bought or sold.

In addition to general indexes of prices for U.S. exports and imports, indexes are also published for detailed product categories of exports and imports. These categories are defined according to the five-digit level of detail for the Bureau of Economic Analysis End-use Classification (SITC), and the four-digit level of detail for the Harmonized System. Aggregate import indexes by country or region of origin are also available.

BLS publishes indexes for selected categories of internationally traded services, calculated on an international basis and on a balance-of-payments basis.

Notes on the data

The export and import price indexes are weighted indexes of the Laspeyres type. Price relatives are assigned equal importance within each harmonized group and are then aggregated to the higher level. The values assigned to each weight category are based on trade value figures compiled by the Bureau of the Census. The trade weights currently used to compute both indexes relate to 1990.

Because a price index depends on the same items being priced from period to period, it is necessary to recognize when a product's specifications or terms of transaction have been modified. For this reason, the Bureau's questionnaire requests detailed descriptions of the physical and functional characteristics of the products being priced, as well as information on the number of units bought or sold, discounts, credit terms, packaging, class of buyer or seller, and so forth. When there are changes in either the specifications or terms of transaction of a product, the dollar value of each change is deleted from the total price change to obtain the "pure" change. Once this value is determined, a linking procedure is employed which allows for the continued repricing of the item.

For the export price indexes, the preferred pricing is f.a.s. (free alongside ship) U.S. port of exportation. When firms report export prices f.o.b. (free on board), production point information is collected which enables the Bureau to calculate a shipment cost to the port of exportation. An attempt is made to collect two prices for imports. The first is the import price f.o.b. at the foreign port of exportation, which is consistent with the basis for valuation of imports in the national accounts. The second is the import price c.i.f.(costs, insurance, and freight) at the U.S. port of importation, which also includes the other costs associated with bringing the product to the U.S. border. It does not, however, include duty charges. For a given product, only one price basis series is used in the construction of an index.

FOR ADDITIONAL INFORMATION on international prices, contact the Division of International Prices: (202) 691–7155.

Productivity Data

(Tables 2; 39–42)

Business sector and major sectors

Description of the series

The productivity measures relate real output to real input. As such, they encompass a family of measures which include single-factor input measures, such as output per hour, output per unit of labor input, or output per unit of capital input, as well as measures of multifactor productivity (output per unit of combined labor and capital inputs). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

Corresponding indexes of hourly compensation, unit labor costs, unit nonlabor payments, and prices are also provided.

Definitions

Output per hour of all persons (labor productivity) is the quantity of goods and services produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the quantity of goods and services produced per unit of capital services input. **Multifactor productivity** is the quantity of goods and services produced per combined inputs. For private business and private nonfarm business, inputs include labor and capital units. For manufacturing, inputs include labor, capital, energy, non-energy materials, and purchased business services.

Compensation per hour is total compensation divided by hours at work. Total compensation equals the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, plus an estimate of these payments for the self-employed (except for nonfinancial corporations in which there are no self-employed). **Real compensation per hour** is compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

Unit labor costs are the labor compensation costs expended in the production of a unit of output and are derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current-dollar value of output and dividing by output.

Unit nonlabor costs contain all the components of unit nonlabor payments except unit profits.

Unit profits include corporate profits with inventory valuation and capital consumption adjustments per unit of output.

Hours of all persons are the total hours at work of payroll workers, self-employed persons, and unpaid family workers.

Labor inputs are hours of all persons adjusted for the effects of changes in the education and experience of the labor force.

Capital services are the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

Combined units of labor and capital inputs are derived by combining changes in labor and capital input with weights which represent each component's share of total cost. Combined units of labor, capital, energy, materials, and purchased business services are similarly derived by combining changes in each input with weights that represent each input's share of total costs. The indexes for each input and for combined units are based on changing weights which are averages of the shares in the current and preceding year (the Tornquist index-number formula).

Notes on the data

Business sector output is an annually-weighted index constructed by excluding from real gross domestic product (GDP) the following outputs: general government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Nonfarm business also excludes farming. Private business and private nonfarm business further exclude government enterprises. The measures are supplied by the U.S. Department of Commerce's Bureau of Economic Analysis. Annual estimates of manufacturing sectoral output are produced by the Bureau of Labor Statistics. Quarterly manufacturing output indexes from the Federal Reserve Board are adjusted to these annual output measures by the BLS. Compensation data are developed from data of the Bureau of Economic Analysis and the Bureau of Labor Statistics. Hours data are developed from data of the Bureau of Labor Statistics.

The productivity and associated cost mea-

sures in tables 39–42 describe the relationship between output in real terms and the labor and capital inputs involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input.

Although these measures relate output to hours and capital services, they do not measure the contributions of labor, capital, or any other specific factor of production. Rather, they reflect the joint effect of many influences, including changes in technology; shifts in the composition of the labor force; capital investment; level of output; changes in the utilization of capacity, energy, material, and research and development; the organization of production; managerial skill; and characteristics and efforts of the work force.

FOR ADDITIONAL INFORMATION on this productivity series, contact the Division of Productivity Research: (202) 691–5606.

Industry productivity measures

Description of the series

The BLS industry productivity data supplement the measures for the business economy and major sectors with annual measures of labor productivity for selected industries at the three- and four-digit levels of the Standard Industrial Classification system. The industry measures differ in methodology and data sources from the productivity measures for the major sectors because the industry measures are developed independently of the National Income and Product Accounts framework used for the major sector measures.

Definitions

Output per hour is derived by dividing an index of industry output by an index of labor input. For most industries, **output** indexes are derived from data on the value of industry output adjusted for price change. For the remaining industries, output indexes are derived from data on the physical quantity of production.

The **labor input** series consist of the hours of all employees (production and nonproduction workers), the hours of all persons (paid employees, partners, proprietors, and unpaid family workers), or the number of employees, depending upon the industry.

Notes on the data

The industry measures are compiled from data produced by the Bureau of Labor Statistics, the Departments of Commerce, Interior, and Agriculture, the Federal Reserve Board, regulatory agencies, trade associations, and other sources.

For most industries, the productivity indexes refer to the output per hour of all employees. For some transportation industries, only indexes of output per employee are prepared. For some trade and service industries, indexes of output per hour of all persons (including self-employed) are constructed.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 691–5618.

International Comparisons

(Tables 43–45)

Labor force and unemployment

Description of the series

Tables 43 and 44 present comparative measures of the labor force, employment, and unemployment—approximating U.S. concepts—for the United States, Canada, Australia, Japan, and several European countries. The unemployment statistics (and, to a lesser extent, employment statistics) published by other industrial countries are not, in most cases, comparable to U.S. unemployment statistics. Therefore, the Bureau adjusts the figures for selected countries, where necessary, for all known major definitional differences. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country.

Definitions

For the principal U.S. definitions of the **labor force**, **employment**, and **unemployment**, see the Notes section on Employment and Unemployment Data: Household survey data.

Notes on the data

The adjusted statistics have been adapted to the age at which compulsory schooling ends in each country, rather than to the U.S. standard of 16 years of age and older. Therefore, the adjusted statistics relate to the population aged 16 and older in France, Sweden, and the United Kingdom; 15 and older in Canada, Australia, Japan, Germany, Italy from 1993 onward, and the Netherlands; and 14 and older in Italy prior to 1993. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany; it is excluded for the United States and the other countries.

In the U.S. labor force survey, persons on layoff who are awaiting recall to their jobs are classified as unemployed. European and Japanese layoff practices are quite different in nature from those in the United States; therefore, strict application of the U.S. definition has not been made on this point. For further information, see *Monthly Labor Review*, December 1981, pp. 8–11.

The figures for one or more recent years for France, Germany, Italy, the Netherlands, and the United Kingdom are calculated using adjustment factors based on labor force surveys for earlier years and are considered preliminary. The recent-year measures for these countries, therefore, are subject to revision whenever data from more current labor force surveys become available.

There are breaks in the data series for the United States (1990, 1994, 1997, 1998), France (1992), Italy (1991, 1993), the Netherlands (1988), and Sweden (1987).

For the United States, the break in series reflects a major redesign of the labor force survey questionnaire and collection methodology introduced in January 1994. Revised population estimates based on the 1990 census, adjusted for the estimated undercount, also were incorporated. In 1996, previously published data for the 1990–93 period were revised to reflect the 1990 census-based population controls, adjusted for the undercount. In 1997, revised population controls were introduced into the household survey. Therefore, the data are not strictly conparable with prior years. In 1998, new composite estimation procedures and minor revisions in population controls were introduced into the household survey. Therefore, the data are not strictly comparable with data for 1997 and earlier years. See the Notes section on Employment and Unemployment Data of this *Review*.

For France, the 1992 break reflects the substitution of standardized European Union Statistical Office (EUROSTAT) unemployment statistics for the unemployment data estimated according to the International Labor Office (ILO) definition and published in the Organization for Economic Cooperation and Development (OECD) annual yearbook and quarterly update. This change was made because the EUROSTAT data are more up-to-date than the OECD figures. Also, since 1992, the EUROSTAT definitions are closer to the U.S. definitions than they were in prior years. The impact of this revision was to lower the unemployment rate by 0.1 percentage point in 1992 and 1993, by 0.4 percentage point in 1994, and 0.5 percentage point in 1995.

For Italy, the 1991 break reflects a revision in the method of weighting sample data. The impact was to increase the unemployment rate by approximately 0.3 percentage point, from 6.6 to 6.9 percent in 1991.

In October 1992, the survey methodology was revised and the definition of unemployment was changed to include only those who were actively looking for a job within the 30 days preceding the survey and who were available for work. In addition, the lower age limit for the labor force was raised from 14 to 15 years. (Prior to these changes, BLS adjusted Italy's published unemployment rate downward by excluding from the unemployed those persons who had not actively sought work in the past 30 days.) The break in the series also reflects the incorporation of the 1991 population census results. The impact of these changes was to raise Italy's adjusted unemployment rate by approximately 1.2 percentage points, from 8.3 to 9.5 percent in fourth-quarter 1992. These changes did not affect employment significantly, except in 1993. Estimates by the Italian Statistical Office indicate that employment declined by about 3 percent in 1993, rather than the nearly 4 percent indicated by the data shown in table 44. This difference is attributable mainly to the incorporation of the 1991 population benchmarks in the 1993 data. Data for earlier years have not been adjusted to incorporate the 1991 census results.

For the Netherlands, a new survey questionnaire was introduced in 1992 that allowed for a closer application of ILO guidelines. EUROSTAT has revised the Dutch series back to 1988 based on the 1992 changes. The 1988 revised unemployment rate is 7.6 percent; the previous estimate for the same year was 9.3 percent.

There have been two breaks in series in the Swedish labor force survey, in 1987 and 1993. Adjustments have been made for the 1993 break back to 1987. In 1987, a new questionnaire was introduced. Questions regarding current availability were added and the period of active workseeking was reduced from 60 days to 4 weeks. These changes lowered Sweden's 1987 unemployment rate by 0.4 percentage point, from 2.3 to 1.9 percent. In 1993, the measurement period for the labor force survey was changed to represent all 52 weeks of the year rather than one week each month and a new adjustment for population totals was introduced. The impact was to raise the unemployment rate by approximately 0.5 percentage point, from 7.6 to 8.1 percent. Statistics Sweden revised its labor force survey data for 1987–92 to take into account the break in 1993. The adjustment raised the Swedish unemployment rate by 0.2 percentage point in 1987 and gradually rose to 0.5 percentage point in 1992.

Beginning with 1987, BLS has adjusted the Swedish data to classify students who also sought work as unemployed. The impact of this change was to increase the adjusted unemployment rate by 0.1 percentage point in 1987 and by 1.8 percentage points in 1994, when unemployment was higher. In 1998, the adjusted unemployment rate had risen from 6.5 to 8.4 percent due to the adjustment to include students.

The net effect of the 1987 and 1993 changes and the BLS adjustment for students seeking work lowered Sweden's 1987 unemployment rate from 2.3 to 2.2 percent.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Manufacturing productivity and labor costs

Description of the series

Table 45 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Canada, Japan, and nine European countries. These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. There are greater technical problems in comparing the levels of manufacturing output among countries.

BLS constructs the comparative indexes from three basic aggregate measures—output, total labor hours, and total compensation. The hours and compensation measures refer to all employed persons (wage and salary earners plus self-employed persons and unpaid family workers) in the United States, Canada, Japan, France, Germany, Norway, and Sweden, and to all employees (wage and salary earners) in the other countries.

Definitions

Output, in general, refers to value added in manufacturing from the national accounts of each country. However, the output series for Japan prior to 1970 is an index of industrial production, and the national accounts measures for the United Kingdom are essentially identical to their indexes of industrial production.

The 1977–97 output data for the United States are the gross product originating (value added) measures prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Comparable manufacturing output data currently are not available prior to 1977.

U.S. gross product originating is a chain-type annual-weighted series. (For more information on the U.S. measure, see Robert E. Yuskavage, "Improved Estimates of Gross Product by Industry, 1959–94," *Survey of Current Business*, August 1996, pp. 133–55.) The Japanese value added series is based upon one set of fixed price weights for the years 1970 through 1997. Output series for the other foreign economies also employ fixed price weights, but the weights are updated periodically (for example, every 5 or 10 years).

To preserve the comparability of the U.S. measures with those for other economies, BLS uses gross product originating in manufacturing for the United States for these comparative measures. The gross product originating series differs from the manufacturing output series that BLS publishes in its news releases on quarterly measures of U.S. productivity and costs (and that underlies the measures that appear in tables 39 and 41 in this section). The quarterly measures are on a "sectoral output" basis, rather than a value-added basis. Sectoral output is gross output less intrasector transactions.

Total labor hours refers to hours worked in all countries. The measures are developed from statistics of manufacturing employment and average hours. The series used for France (from 1970 forward), Norway, and Sweden are official series published with the national accounts. Where official total hours series are not available, the measures are developed by BLS using employment figures published with the national accounts, or other comprehensive employment series, and estimates of annual hours worked. For Germany, BLS uses estimates of average hours worked developed by a research institute connected to the Ministry of Labor for use with the national accounts employment figures. For the other countries, BLS constructs its own estimates of average hours.

Denmark has not published estimates of average hours for 1994–97; therefore, the BLS measure of labor input for Denmark ends in 1993.

Total compensation (labor cost) includes all payments in cash or in-kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. The measures are from the national accounts of each country, except those for Belgium, which are developed by BLS using statistics on employment, average hours, and hourly compensation. For Canada, France, and Sweden, compensation is increased to account for other significant taxes on payroll or employment. For the United Kingdom, compensation is reduced between 1967 and 1991 to account for employment-related subsidies. Self-employed workers are included in the all-employed-persons measures by assuming that their hourly compensation is equal to the average for wage and salary employees.

Notes on the data

In general, the measures relate to total manufacturing as defined by the International Stan-

dard Industrial Classification. However, the measures for France (for all years) and Italy (beginning 1970) refer to mining and manufacturing less energy-related products, and the measures for Denmark include mining and exclude manufacturing handicrafts from 1960 to 1966.

The measures for recent years may be based on current indicators of manufacturing output (such as industrial production indexes), employment, average hours, and hourly compensation until national accounts and other statistics used for the long-term measures become available.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Occupational Injury and Illness Data

(Tables 46–47)

Survey of Occupational Injuries and Illnesses

Description of the series

The Survey of Occupational Injuries and Illnesses collects data from employers about their workers' job-related nonfatal injuries and illnesses. The information that employers provide is based on records that they maintain under the Occupational Safety and Health Act of 1970. Self-employed individuals, farms with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies are excluded from the survey.

The survey is a Federal-State cooperative program with an independent sample selected for each participating State. A stratified random sample with a Neyman allocation is selected to represent all private industries in the State. The survey is stratified by Standard Industrial Classification and size of employment.

Definitions

Under the Occupational Safety and Health Act, employers maintain records of nonfatal work-related injuries and illnesses that involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment other than first aid.

Occupational injury is any injury such as a cut, fracture, sprain, or amputation that results from a work-related event or a single, instantaneous exposure in the work environment.

Occupational illness is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to factors associated with employment. It includes acute and chronic illnesses or disease which may be caused by inhalation, absorption, ingestion, or direct contact.

Lost workday injuries and illnesses are cases that involve days away from work, or days of restricted work activity, or both.

Lost workdays include the number of workdays (consecutive or not) on which the employee was either away from work or at work in some restricted capacity, or both, because of an occupational injury or illness. BLS measures of the number and incidence rate of lost workdays were discontinued beginning with the 1993 survey. The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness or any days on which the employee would not have worked, such as a Federal holiday, even though able to work.

Incidence rates are computed as the number of injuries and/or illnesses or lost work days per 100 full-time workers.

Notes on the data

The definitions of occupational injuries and illnesses are from *Recordkeeping Guidelines for Occupational Injuries and Illnesses* (U.S. Department of Labor, Bureau of Labor Statistics, September 1986).

Estimates are made for industries and employment size classes for total recordable cases, lost workday cases, days away from work cases, and nonfatal cases without lost workdays. These data also are shown separately for injuries. Illness data are available for seven categories: occupational skin diseases or disorders, dust diseases of the lungs, respiratory conditions due to toxic agents, poisoning (systemic effects of toxic agents), disorders due to physical agents (other than toxic materials), disorders associated with repeated trauma, and all other occupational illnesses.

The survey continues to measure the number of new work-related illness cases which are recognized, diagnosed, and reported during the year. Some conditions, for example, long-term latent illnesses caused by exposure to carcinogens, often are difficult to relate to the workplace and are not adequately recognized and reported. These long-term latent illnesses are believed to be understated in the survey's illness measure. In contrast, the overwhelming majority of the reported new illnesses are those which are easier to directly relate to workplace activity (for example, contact dermatitis and carpal tunnel syndrome).

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses per 100 equivalent full-time workers. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Full detail on the available measures is presented in the annual bulletin, *Occupational Injuries and Illnesses: Counts, Rates, and Characteristics.*

Comparable data for more than 40 States and territories are available from the BLS Office of Safety, Health and Working Conditions. Many of these States publish data on State and local government employees in addition to private industry data.

Mining and railroad data are furnished to BLS by the Mine Safety and Health Administration and the Federal Railroad Administration. Data from these organizations are included in both the national and State data published annually.

With the 1992 survey, BLS began publishing details on serious, nonfatal incidents resulting in days away from work. Included are some major characteristics of the injured and ill workers, such as occupation, age, gender, race, and length of service, as well as the circumstances of their injuries and illnesses (nature of the disabling condition, part of body affected, event and exposure, and the source directly producing the condition). In general, these data are available nationwide for detailed industries and for individual States at more aggregated industry levels.

FOR ADDITIONAL INFORMATION on occupational injuries and illnesses, contact the Office of Occupational Safety, Health and Working Conditions at (202) 691–6180, or access the Internet at:

http://www.bls.gov/oshhome.htm

Census of Fatal Occupational Injuries

The Census of Fatal Occupational Injuries compiles a complete roster of fatal job-related injuries, including detailed data about the fatally injured workers and the fatal events. The program collects and cross checks fatality information from multiple sources, including death certificates, State and Federal workers' compensation reports, Occupational Safety and Health Administration and Mine Safety and Health Administration records, medical examiner and autopsy reports, media accounts, State motor vehicle fatality records, and follow-up questionnaires to employers.

In addition to private wage and salary workers, the self-employed, family members, and Federal, State, and local government workers are covered by the program. To be included in the fatality census, the decedent must have been employed (that is working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job.

Definition

A fatal work injury is any intentional or unintentional wound or damage to the body resulting in death from acute exposure to energy, such as heat or electricity, or kinetic energy from a crash, or from the absence of such essentials as heat or oxygen caused by a specific event or incident or series of events within a single workday or shift. Fatalities that occur during a person's commute to or from work are excluded from the census, as well as work-related illnesses, which can be difficult to identify due to long latency periods.

Notes on the data

Twenty-eight data elements are collected, coded, and tabulated in the fatality program, including information about the fatally injured worker, the fatal incident, and the machinery or equipment involved. Summary worker demographic data and event characteristics are included in a national news release that is available about 8 months after the end of the reference year. The Census of Fatal Occupational Injuries was initiated in 1992 as a joint Federal-State effort. Most States issue summary information at the time of the national news release.

FOR ADDITIONAL INFORMATION on the Census of Fatal Occupational Injuries contact the BLS Office of Safety, Health, and Working Conditions at (202) 691–6175, or the Internet at:

http://www.bls.gov/oshhome.htm

Bureau of Labor Statistics Internet

The Bureau of Labor Statistics World Wide Web site on the Internet contains a range of data on consumer and producer prices, employment and unemployment, occupational compensation, employee benefits, workplace injuries and illnesses, and productivity. The homepage can be accessed using any Web browser:

http://stats.bls.gov

Also, some data can be accessed through anonymous FTP or Gopher at

stats.bls.gov

1. Labor market indicators

Selected indicators	1998	1999	1998				1999				2000
			I	II	III	IV	I	II	III	IV	I
Employment data											
Employment status of the civilian noninstitutionalized population (household survey):[1]											
Labor force participation rate	67.1	67.1	67.2	67.0	67.0	67.1	67.2	67.1	67.0	67.0	67.5
Employment-population ratio	64.1	64.3	64.0	64.1	64.0	64.1	64.3	64.2	64.2	64.3	64.7
Unemployment rate	4.5	4.2	4.7	4.4	4.5	4.4	4.3	4.3	4.2	4.1	4.1
Men	4.4	4.1	4.6	4.3	4.5	4.3	4.2	4.2	4.1	4.0	4.0
16 to 24 years	11.1	10.3	11.4	10.7	11.5	10.6	10.4	10.4	10.0	10.4	9.7
25 years and over	3.2	3.0	3.3	3.1	3.2	3.1	3.0	3.0	3.0	2.9	2.9
Women	4.6	4.3	4.8	4.6	4.5	4.6	4.4	4.4	4.4	4.2	4.2
16 to 24 years	9.8	9.5	10.0	9.7	9.9	9.4	9.8	9.2	9.5	9.4	9.6
25 years and over	3.6	3.3	3.8	3.6	3.5	3.6	3.4	3.4	3.3	3.1	3.2
Employment, nonfarm (payroll data), in thousands:[1]											
Total	125,865	128,786	124,748	125,486	126,180	126,967	127,800	128,430	129,073	129,783	130,626
Private sector	106,042	108,616	105,070	105,726	106,321	107,016	107,741	108,319	108,874	109,507	110,195
Goods-producing	25,414	25,482	25,346	25,427	25,408	25,469	25,488	25,454	25,459	25,524	25,680
Manufacturing	18,805	18,543	18,872	18,871	18,765	18,716	18,632	18,543	18,516	18,482	18,481
Service-producing	100,451	103,304	99,403	100,059	100,772	101,498	102,312	102,976	103,614	104,259	104,946
Average hours:											
Private sector	34.6	34.5	34.7	34.6	34.6	34.6	34.5	34.5	34.5	34.5	34.5
Manufacturing	41.7	41.7	42.0	41.7	41.7	41.7	41.6	41.7	41.8	41.7	41.7
Overtime	4.6	4.6	4.8	4.6	4.6	4.5	4.5	4.6	4.6	4.7	4.6
Employment Cost Index[2]											
Percent change in the ECI, compensation:											
All workers (excluding farm, household and Federal workers)	3.4	3.4	.8	.8	1.2	.6	.4	1.0	1.1	.9	1.3
Private industry workers	3.5	3.4	.9	.9	1.1	.6	.4	1.1	.9	.9	1.5
Goods-producing[3]	2.8	3.4	.7	.8	.7	.5	.8	.7	.9	1.0	1.6
Service-producing[3]	3.8	3.4	1.0	.8	1.3	.6	.3	1.3	.9	.8	1.4
State and local government workers	3.0	3.4	.6	.3	1.5	.6	.5	.4	1.5	1.0	.6
Workers by bargaining status (private industry):											
Union	3.0	2.7	.4	1.0	1.1	.5	.4	.7	.9	.7	1.3
Nonunion	3.5	3.6	1.0	.8	1.1	.6	.5	1.2	.9	1.0	1.5

[1] Quarterly data seasonally adjusted.

[2] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter.

[3] Goods-producing industries include mining, construction, and manufacturing. Service-producing industries include all other private sector industries.

2. Annual and quarterly percent changes in compensation, prices, and productivity

Selected measures	1998	1999	1998				1999				2000
			I	II	III	IV	I	II	III	IV	I
Compensation data[1,2]											
Employment Cost Index—compensation (wages, salaries, benefits):											
Civilian nonfarm	3.4	3.4	0.8	0.8	1.2	0.6	0.4	1.0	1.1	0.9	1.3
Private nonfarm	3.5	3.4	.9	.9	1.1	.6	.4	1.1	.9	.9	1.5
Employment Cost Index—wages and salaries:											
Civilian nonfarm	3.7	3.5	.9	.7	1.3	.7	.5	1.0	1.1	.8	1.1
Private nonfarm	3.9	3.5	1.1	.9	1.3	.6	.5	1.2	.9	.9	1.2
Price data[1]											
Consumer Price Index (All Urban Consumers): All Items	1.6	2.7	.6	.5	.4	.2	.7	.7	1.0	.2	1.7
Producer Price Index:											
Finished goods	.0	2.9	−.8	.5	−.1	.4	.0	1.2	1.5	.1	1.6
Finished consumer goods	.0	3.8	−1.0	.8	.0	.2	.0	1.8	2.2	−.2	2.0
Capital equipment	.0	.3	.0	−.5	−.4	.9	−.1	−.4	−.4	1.2	.1
Intermediate materials, supplies, and components	−3.3	3.7	−1.4	.2	−.5	−1.6	−.2	1.9	1.9	.1	2.0
Crude materials	−16.7	15.3	−8.8	−1.8	−5.6	−2.5	−.1	9.4	10.2	−3.5	9.5
Productivity data[3]											
Output per hour of all persons:											
Business sector	2.9	3.2	4.8	.7	3.5	4.3	2.9	.8	4.7	6.6	1.8
Nonfarm business sector	2.8	3.0	4.7	1.0	3.2	4.1	2.7	.5	5.0	6.9	2.4
Nonfinancial corporations[4]	4.0	4.0	3.7	3.9	5.9	3.1	4.1	3.4	4.0	5.1	3.6

[1] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter. Compensation and price data are not seasonally adjusted, and the price data are not compounded.

[2] Excludes Federal and private household workers.

[3] Annual rates of change are computed by comparing annual averages. Quarterly percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

[4] Output per hour of all employees.

3. Alternative measures of wage and compensation changes

Components	Quarterly average						Four quarters ending—					
	1998	1999				2000	1998	1999				2000
	IV	I	II	III	IV	I	IV	I	II	III	IV	I
Average hourly compensation:[1]												
All persons, business sector	4.9	4.9	5.1	4.5	3.3	3.5	5.4	5.4	5.3	4.9	4.5	4.1
All persons, nonfarm business sector	4.6	4.2	4.7	4.6	3.8	4.1	5.4	5.2	4.9	4.5	4.3	4.3
Employment Cost Index—compensation:												
Civilian nonfarm[2]	.6	.4	1.0	1.1	.9	1.3	3.4	3.0	3.2	3.1	3.4	4.3
Private nonfarm	.6	.4	1.1	.9	.9	1.5	3.5	3.0	3.3	3.1	3.4	4.6
Union	.5	.4	.7	.9	.7	1.3	3.0	3.0	2.7	2.5	2.7	3.6
Nonunion	.6	.5	1.2	.9	1.0	1.5	3.5	3.0	3.4	3.2	3.6	4.7
State and local governments	.6	.5	.4	1.5	1.0	.6	3.0	2.9	3.0	2.9	3.4	3.6
Employment Cost Index—wages and salaries:												
Civilian nonfarm[2]	.7	.5	1.0	1.1	.8	1.1	3.7	3.3	3.6	3.3	3.5	4.0
Private nonfarm	.6	.5	1.2	.9	.9	1.2	3.9	3.3	3.6	3.2	3.5	4.2
Union	.5	.4	.8	.7	.6	.5	3.3	3.1	3.1	2.5	2.6	2.7
Nonunion	.7	.5	1.2	.9	.9	1.3	4.0	3.3	3.7	3.3	3.6	4.4
State and local governments	.7	.4	.4	1.9	.9	.6	3.1	2.9	3.1	3.3	3.6	3.8

[1] Seasonally adjusted. "Quarterly average" is percent change from a quarter ago, at an annual rate.

[2] Excludes Federal and household workers.

4. Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
TOTAL															
Civilian noninstitutional population[1]	205,220	207,753	207,236	207,427	207,632	207,828	208,038	208,265	208,483	208,666	208,832	208,782	208,907	209,053	209,216
Civilian labor force	137,673	139,368	139,086	139,013	139,332	139,336	139,372	139,475	139,697	139,834	140,108	140,910	141,165	140,867	141,230
Participation rate	67.1	67.1	67.1	67.0	67.1	67.0	67.0	67.0	67.0	67.0	67.1	67.5	67.6	67.4	67.5
Employed	131,463	133,488	133,054	133,190	133,398	133,399	133,530	133,650	133,940	134,098	134,420	135,221	135,362	135,159	135,706
Employment-population ratio[2]	64.1	64.3	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.3	64.4	64.8	64.8	64.7	64.9
Unemployed	6,210	5,880	6,032	5,823	5,934	5,937	5,842	5,825	5,757	5,736	5,688	5,689	5,804	5,708	5,524
Unemployment rate	4.5	4.2	4.3	4.2	4.3	4.3	4.2	4.2	4.1	4.1	4.1	4.0	4.1	4.1	3.9
Not in the labor force	67,547	68,385	68,150	68,414	68,300	68,492	68,666	68,790	68,786	68,832	68,724	67,872	67,742	68,187	67,986
Men, 20 years and over															
Civilian noninstitutional population[1]	90,790	91,555	91,302	91,368	91,487	91,561	91,692	91,793	91,896	91,986	92,052	92,057	92,092	92,145	92,303
Civilian labor force	69,715	70,194	69,992	69,978	70,116	70,167	70,240	70,328	70,339	70,388	70,529	70,917	71,120	70,822	70,761
Participation rate	76.8	76.7	76.7	76.6	76.6	76.6	76.6	76.6	76.5	76.5	76.6	77.0	77.2	76.9	76.7
Employed	67,135	67,761	67,562	67,470	67,645	67,703	67,768	67,943	67,898	68,037	68,197	68,585	68,691	68,480	68,481
Employment-population ratio[2]	73.9	74.0	74.0	73.8	73.9	73.9	73.9	74.0	73.9	74.0	74.1	74.5	74.6	74.3	74.2
Agriculture	2,350	2,244	2,305	2,224	2,246	2,256	2,237	2,189	2,206	2,262	2,227	2,303	2,309	2,232	2,213
Nonagricultural industries	64,785	65,517	65,257	65,246	65,399	65,447	65,531	65,754	65,692	65,775	65,970	66,282	66,382	66,249	66,269
Unemployed	2,580	2,433	2,430	2,508	2,471	2,464	2,472	2,385	2,441	2,351	2,332	2,332	2,429	2,342	2,280
Unemployment rate	3.7	3.5	3.5	3.6	3.5	3.5	3.5	3.4	3.5	3.3	3.3	3.3	3.4	3.3	3.2
Women, 20 years and over															
Civilian noninstitutional population[1]	98,786	100,158	99,923	100,008	100,131	100,203	100,285	100,385	100,458	100,573	100,666	100,579	100,666	100,713	100,809
Civilian labor force	59,702	60,840	60,765	60,708	60,988	60,852	60,904	60,860	60,955	61,052	61,154	61,576	61,575	61,671	61,920
Participation rate	60.4	60.7	60.8	60.7	60.9	60.7	60.7	60.6	60.7	60.7	60.7	61.2	61.2	61.2	61.4
Employed	57,278	58,555	58,336	58,483	58,647	58,477	58,648	58,630	58,800	58,838	58,958	59,280	59,398	59,422	59,757
Employment-population ratio[2]	58.0	58.5	58.4	58.5	58.6	58.4	58.5	58.4	58.5	58.5	58.6	58.9	59.0	59.0	59.3
Agriculture	768	803	803	820	851	798	780	778	800	768	791	826	871	894	899
Nonagricultural industries	56,510	57,752	57,533	57,663	57,796	57,679	57,868	57,852	58,000	58,070	58,167	58,454	58,526	58,528	58,858
Unemployed	2,424	2,285	2,429	2,225	2,341	2,375	2,256	2,230	2,155	2,214	2,196	2,297	2,178	2,249	2,163
Unemployment rate	4.1	3.8	4.0	3.7	3.8	3.9	3.7	3.7	3.5	3.6	3.6	3.7	3.5	3.6	3.5
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]	15,644	16,040	16,011	16,051	16,014	16,065	16,061	16,086	16,129	16,107	16,114	16,147	16,149	16,196	16,104
Civilian labor force	8,256	8,333	8,329	8,327	8,228	8,317	8,228	8,287	8,403	8,394	8,425	8,416	8,470	8,374	8,549
Participation rate	52.8	52.0	52.0	51.9	51.4	51.8	51.2	51.5	52.1	52.1	52.3	52.1	52.4	51.7	53.1
Employed	7,051	7,172	7,156	7,237	7,106	7,219	7,114	7,077	7,242	7,223	7,265	7,356	7,273	7,257	7,467
Employment-population ratio[2]	45.1	44.7	44.7	45.1	44.4	44.9	44.3	44.0	44.9	44.8	45.1	45.6	45.0	44.8	46.4
Agriculture	261	234	233	246	233	224	217	212	232	280	261	242	228	233	243
Nonagricultural industries	6,790	6,938	6,923	6,991	6,873	6,995	6,897	6,865	7,010	6,943	7,004	7,114	7,046	7,024	7,224
Unemployed	1,205	1,162	1,173	1,090	1,122	1,098	1,114	1,210	1,161	1,171	1,160	1,060	1,197	1,117	1,082
Unemployment rate	14.6	13.9	14.1	13.1	13.6	13.2	13.5	14.6	13.8	14.0	13.8	12.6	14.1	13.3	12.7
White															
Civilian noninstitutional population[1]	171,478	173,085	172,730	172,859	172,999	173,133	173,275	173,432	173,585	173,709	173,821	173,812	173,886	173,983	174,092
Civilian labor force	115,415	116,509	116,344	116,193	116,518	116,492	116,619	116,495	116,654	116,703	117,008	117,716	117,821	117,832	117,988
Participation rate	67.3	67.3	67.4	67.2	67.4	67.3	67.3	67.2	67.2	67.2	67.3	67.7	67.8	67.7	67.8
Employed	110,931	112,235	111,886	111,898	112,115	112,193	112,308	112,303	112,548	112,611	112,951	113,704	113,634	113,630	113,915
Employment-population ratio[2]	64.7	64.8	64.8	64.7	64.8	64.8	64.8	64.8	64.8	64.8	65.0	65.4	65.3	65.3	65.4
Unemployed	4,484	4,273	4,458	4,295	4,403	4,299	4,311	4,192	4,106	4,092	4,057	4,011	4,187	4,202	4,073
Unemployment rate	3.9	3.7	3.8	3.7	3.8	3.7	3.7	3.6	3.5	3.5	3.5	3.4	3.6	3.6	3.5
Black															
Civilian noninstitutional population[1]	24,373	24,855	24,765	24,798	24,833	24,867	24,904	24,946	24,985	25,019	25,051	25,047	25,076	25,105	25,135
Civilian labor force	15,982	16,365	16,288	16,290	16,308	16,366	16,321	16,474	16,489	16,508	16,513	16,622	16,785	16,572	16,636
Participation rate	65.6	65.8	65.8	65.7	65.7	65.8	65.5	66.0	66.0	66.0	65.9	66.4	66.9	66.0	66.2
Employed	14,556	15,056	15,011	15,053	15,069	14,962	15,047	15,114	15,124	15,187	15,204	15,254	15,471	15,356	15,444
Employment-population ratio[2]	59.7	60.6	60.6	60.7	60.7	60.2	60.4	60.6	60.5	60.7	60.7	60.9	61.7	61.2	61.4
Unemployed	1,426	1,309	1,277	1,237	1,239	1,404	1,274	1,360	1,365	1,321	1,309	1,368	1,314	1,216	1,191
Unemployment rate	8.9	8.0	7.8	7.6	7.6	8.6	7.8	8.3	8.3	8.0	7.9	8.2	7.8	7.3	7.2

See footnotes at end of table

4. Continued—Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Hispanic origin															
Civilian noninstitutional population[1]	21,070	21,650	21,483	21,548	21,618	21,684	21,752	21,820	21,881	21,947	22,008	22,047	22,108	22,166	22,231
Civilian labor force	14,317	14,665	14,535	14,555	14,624	14,617	14,710	14,766	14,809	14,887	14,984	15,251	15,249	15,313	15,355
Participation rate	67.9	67.7	67.7	67.5	67.6	67.4	67.6	67.7	67.7	67.8	68.1	69.2	69.0	69.1	69.1
Employed	13,291	13,720	13,541	13,574	13,655	13,696	13,759	13,795	13,879	13,979	14,095	14,395	14,382	14,355	14,524
Employment-population ratio[2]	63.1	63.4	63.0	63.0	63.2	63.2	63.3	63.2	63.4	63.7	64.0	65.3	65.1	64.8	65.3
Unemployed	1,026	945	994	981	969	921	951	971	930	908	889	856	868	958	831
Unemployment rate	7.2	6.4	6.8	6.7	6.6	6.3	6.5	6.6	6.3	6.1	5.9	5.6	5.7	6.3	5.4

[1] The population figures are not seasonally adjusted.

[2] Civilian employment as a percent of the civilian noninstitutional population.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

5. Selected employment indicators, monthly data seasonally adjusted

[In thousands]

Selected categories	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Characteristic															
Employed, 16 years and over	131,463	133,488	133,054	133,190	133,398	133,399	133,530	133,650	133,940	134,098	134,420	135,221	135,362	135,159	135,706
Men	70,693	71,446	71,208	71,207	71,330	71,437	71,436	71,630	71,623	71,732	71,927	72,358	72,473	72,313	72,307
Women	60,771	62,042	61,846	61,983	62,068	61,962	62,094	62,020	62,317	62,366	62,493	62,863	62,889	62,846	63,399
Married men, spouse present	42,923	43,254	43,210	42,997	43,279	43,350	43,368	43,367	43,206	43,273	43,283	43,951	43,535	43,297	43,272
Married women, spouse present	32,872	33,450	33,284	33,442	33,758	33,387	33,504	33,275	33,521	33,635	33,762	34,166	33,882	33,780	33,877
Women who maintain families	7,904	8,229	8,081	8,081	8,028	8,272	8,335	8,312	8,398	8,526	8,375	8,362	8,220	8,082	8,307
Class of worker															
Agriculture:															
Wage and salary workers	2,000	1,944	1,930	1,930	1,923	1,939	1,908	1,930	1,936	2,049	2,018	2,024	2,025	2,043	2,054
Self-employed workers	1,341	1,297	1,399	1,330	1,341	1,292	1,266	1,198	1,267	1,216	1,211	1,320	1,344	1,292	1,272
Unpaid family workers	38	40	33	36	39	45	46	40	42	41	36	38	51	42	43
Nonagricultural industries:															
Wage and salary workers	119,019	121,323	120,925	121,311	121,006	121,188	121,150	121,583	121,654	121,965	122,426	122,823	123,166	123,169	123,623
Government	18,383	18,903	18,778	18,771	19,007	19,032	19,114	19,080	18,817	18,902	18,959	19,013	19,394	19,598	19,280
Private industries	100,637	102,420	102,147	102,540	101,999	102,156	102,036	102,503	102,837	103,063	103,467	103,810	103,772	103,571	104,343
Private households	962	933	935	914	983	944	873	1,035	939	944	948	952	1,016	998	1,019
Other	99,674	101,487	101,212	101,626	101,016	101,212	101,163	101,468	101,898	102,119	102,519	102,858	102,756	102,573	103,324
Self-employed workers	8,962	8,790	8,801	8,726	8,840	8,820	9,000	8,791	8,833	8,686	8,662	8,802	8,793	8,704	8,750
Unpaid family workers	103	95	65	61	88	77	93	100	101	108	98	92	74	107	103
Persons at work part time[1]															
All industries:															
Part time for economic reasons	3,665	3,357	3,403	3,399	3,377	3,316	3,279	3,283	3,179	3,274	3,320	3,219	3,139	3,124	3,124
Slack work or business conditions	2,095	1,968	1,937	1,950	2,048	1,974	1,904	1,922	1,928	1,930	1,951	1,893	1,807	1,820	1,844
Could only find part-time work	1,258	1,079	1,117	1,116	1,045	1,050	1,057	1,073	993	1,032	1,025	1,012	1,023	953	1,016
Part time for noneconomic reasons	18,530	18,758	18,752	18,692	18,716	18,983	19,230	18,801	18,799	18,651	18,618	18,889	19,031	18,770	18,474
Nonagricultural industries:															
Part time for economic reasons	3,501	3,189	3,225	3,229	3,209	3,142	3,127	3,112	2,983	3,105	3,157	3,066	2,985	3,003	3,021
Slack work or business conditions	1,997	1,861	1,845	1,845	1,902	1,850	1,813	1,806	1,807	1,815	1,843	1,801	1,705	1,766	1,782
Could only find part-time work	1,228	1,056	1,087	1,089	1,031	1,034	1,041	1,063	964	1,013	1,018	966	1,005	922	989
Part time for noneconomic reasons	17,954	18,197	18,159	18,138	18,106	18,466	18,652	18,273	18,249	18,083	18,061	18,347	18,406	18,184	17,943

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

6. Selected unemployment indicators, monthly data seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Characteristic															
Total, all workers	4.5	4.2	4.3	4.2	4.3	4.3	4.2	4.2	4.1	4.1	4.1	4.0	4.1	4.1	3.9
Both sexes, 16 to 19 years	14.6	13.9	14.1	13.1	13.6	13.2	13.5	14.6	13.8	14.0	13.8	12.6	14.1	13.3	12.7
Men, 20 years and over	3.7	3.5	3.5	3.6	3.5	3.5	3.5	3.4	3.5	3.3	3.3	3.3	3.4	3.3	3.2
Women, 20 years and over	4.1	3.8	4.0	3.7	3.8	3.9	3.7	3.7	3.5	3.6	3.6	3.7	3.5	3.6	3.5
White, total	3.9	3.7	3.8	3.7	3.8	3.7	3.7	3.6	3.5	3.5	3.5	3.4	3.6	3.6	3.5
Both sexes, 16 to 19 years	12.6	12.0	12.1	11.4	12.0	11.4	11.7	12.3	11.8	12.0	12.2	10.8	12.5	11.7	11.6
Men, 16 to 19 years	14.1	12.6	12.6	12.2	12.0	11.7	12.3	12.7	11.9	12.8	13.3	12.4	14.4	11.3	13.0
Women, 16 to 19 years	10.9	11.3	11.6	10.6	12.0	11.1	11.0	11.9	11.7	11.2	10.9	9.1	10.4	12.1	10.0
Men, 20 years and over	3.2	3.0	3.0	3.1	3.2	3.1	3.2	2.9	2.9	2.8	2.8	2.8	2.9	2.9	2.8
Women, 20 years and over	3.4	3.3	3.6	3.3	3.4	3.3	3.2	3.2	3.1	3.1	3.0	3.1	3.1	3.2	3.1
Black, total	8.9	8.0	7.8	7.6	7.6	8.6	7.8	8.3	8.3	8.0	7.9	8.2	7.8	7.3	7.2
Both sexes, 16 to 19 years	27.6	27.9	27.8	25.2	24.8	26.9	28.1	30.8	30.8	28.4	25.3	23.9	24.3	25.1	22.2
Men, 16 to 19 years	30.1	30.9	32.0	27.9	28.8	30.7	29.6	30.3	35.3	31.0	27.5	24.0	22.3	21.3	22.0
Women, 16 to 19 years	25.3	25.1	23.8	22.5	21.2	23.4	26.7	31.4	26.1	25.9	23.0	23.8	26.6	28.9	22.4
Men, 20 years and over	7.4	6.7	6.3	6.6	6.4	7.2	6.3	7.1	7.7	7.0	7.0	7.4	7.1	6.4	6.6
Women, 20 years and over	7.9	6.8	6.9	6.5	6.7	7.7	6.9	6.7	6.1	6.6	6.7	7.2	6.5	6.1	5.8
Hispanic origin, total	7.2	6.4	6.8	6.7	6.6	6.3	6.5	6.6	6.3	6.1	5.9	5.6	5.7	6.3	5.4
Married men, spouse present	2.4	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.2	2.1	2.2	2.0	2.1	2.0	1.8
Married women, spouse present	2.9	2.7	2.9	2.6	2.7	2.8	2.7	2.6	2.5	2.5	2.5	2.6	2.6	2.7	2.6
Women who maintain families	7.2	6.4	7.1	6.0	6.5	6.4	6.3	6.4	6.0	6.0	6.2	6.2	6.1	6.8	6.3
Full-time workers	4.3	4.1	4.2	4.0	4.0	4.1	4.1	4.0	4.0	3.9	3.9	3.9	3.9	3.8	3.8
Part-time workers	5.3	5.0	5.0	5.2	5.3	4.9	4.6	5.0	4.7	4.9	4.9	4.6	4.9	5.1	4.6
Industry															
Nonagricultural wage and salary workers	4.6	4.3	4.4	4.3	4.4	4.4	4.2	4.3	4.2	4.2	4.1	4.2	4.2	4.3	4.0
Mining	3.2	5.7	8.4	5.9	4.8	6.0	4.2	6.7	5.0	4.6	4.1	2.6	4.0	2.5	2.8
Construction	7.5	7.0	7.3	7.2	7.3	6.9	7.6	6.9	6.7	5.7	6.6	6.4	7.5	6.9	5.2
Manufacturing	3.9	3.6	3.4	3.5	3.7	3.5	3.8	3.9	3.7	3.7	3.6	3.2	3.3	3.9	4.0
Durable goods	3.4	3.5	3.2	3.4	3.5	3.7	3.7	4.0	3.5	3.7	3.6	2.8	3.0	3.0	3.9
Nondurable goods	4.7	3.9	3.9	3.8	4.0	3.1	4.1	3.9	4.0	3.7	3.5	3.9	3.8	5.2	4.1
Transportation and public utilities	3.4	3.0	2.9	3.2	2.9	3.4	3.0	2.8	3.1	3.3	3.0	3.7	3.2	3.1	2.9
Wholesale and retail trade	5.5	5.2	5.4	5.3	5.3	5.2	4.8	5.2	4.9	5.3	5.2	5.1	5.3	5.4	4.9
Finance, insurance, and real estate	2.5	2.3	3.2	2.2	2.4	2.4	2.4	2.3	2.3	2.3	2.1	2.5	2.9	2.4	2.6
Services	4.5	4.1	4.1	4.0	4.2	4.4	4.0	4.1	4.0	3.9	3.8	4.2	3.7	4.0	3.7
Government workers	2.3	2.2	2.4	2.5	2.3	2.2	2.1	2.0	2.1	2.0	2.1	2.1	2.2	1.7	1.7
Agricultural wage and salary workers	8.3	8.9	9.5	10.1	9.3	9.0	9.6	5.7	7.7	8.3	7.1	5.0	6.5	5.6	8.4
Educational attainment[1]															
Less than a high school diploma	7.1	6.7	6.8	6.8	6.8	6.8	7.0	6.8	6.6	6.5	6.0	6.6	6.0	6.9	6.1
High school graduates, no college	4.0	3.5	3.6	3.6	3.8	3.6	3.5	3.5	3.3	3.3	3.5	3.5	3.5	3.4	3.4
Some college, less than a bachelor's degree	3.0	2.8	2.9	2.8	2.6	3.0	3.1	2.7	2.7	2.7	2.5	2.6	2.9	2.7	2.6
College graduates	1.8	1.8	2.0	1.8	2.0	1.8	1.6	1.7	1.7	1.7	1.8	1.8	1.6	1.6	1.5

[1] Data refer to persons 25 years and over.

8. Unemployed persons by reason for unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Reason for unemployment	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Job losers[1]	2,822	2,622	2,695	2,678	2,670	2,670	2,629	2,573	2,518	2,493	2,401	2,477	2,616	2,541	2,306
On temporary layoff	866	848	843	837	876	847	893	869	802	851	795	739	838	781	703
Not on temporary layoff	1,957	1,774	1,852	1,841	1,794	1,823	1,736	1,704	1,716	1,642	1,606	1,739	1,778	1,759	1,602
Job leavers	734	783	810	781	831	768	793	758	778	821	825	776	759	824	883
Reentrants	2,132	2,005	2,039	2,034	2,038	2,003	1,942	1,967	1,958	1,935	2,036	2,043	1,975	1,979	1,961
New entrants	520	469	473	440	359	459	481	504	511	485	453	393	387	434	408
Percent of unemployed															
Job losers[1]	45.5	44.6	44.8	45.1	45.3	45.3	45.0	44.3	43.7	43.5	42.0	43.5	45.6	44.0	41.9
On temporary layoff	13.9	14.4	14.0	14.1	14.9	14.4	15.3	15.0	13.9	14.8	13.9	13.0	14.6	13.5	12.8
Not on temporary layoff	31.5	30.2	30.8	31.0	30.4	30.9	29.7	29.4	29.8	28.6	28.1	30.6	31.0	30.5	29.1
Job leavers	11.8	13.3	13.5	13.2	14.1	13.0	13.6	13.1	13.5	14.3	14.4	13.6	13.2	14.3	15.1
Reentrants	34.3	34.1	33.9	34.3	34.6	33.9	33.2	33.9	34.0	33.7	35.6	35.9	34.4	34.3	35.6
New entrants	8.4	8.0	7.9	7.4	6.1	7.8	8.2	8.7	8.9	8.5	7.9	6.9	6.7	7.5	7.4
Percent of civilian labor force															
Job losers[1]	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.8	1.9	1.8	1.6
Job leavers	.5	.6	.6	.6	.6	.6	.6	.5	.6	.6	.6	.6	.5	.6	.6
Reentrants	1.5	1.4	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4
New entrants	.4	.3	.3	.3	.3	.3	.3	.4	.4	.3	.3	.3	.3	.3	.3

[1] Includes persons who completed temporary jobs.

9. Unemployment rates by sex and age, monthly data seasonally adjusted

[Civilian workers]

Sex and age	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Total, 16 years and over	4.5	4.2	4.3	4.2	4.3	4.3	4.2	4.2	4.1	4.1	4.1	4.0	4.1	4.1	3.9
16 to 24 years	10.4	9.9	10.0	9.6	9.8	9.7	9.6	10.0	10.0	10.0	9.8	9.3	10.0	9.7	9.3
16 to 19 years	14.6	13.9	14.1	13.1	13.6	13.2	13.5	14.6	13.9	14.0	13.8	12.6	14.1	13.3	12.7
16 to 17 years	17.2	16.3	16.6	16.1	16.3	15.4	15.9	16.1	15.9	16.5	16.5	14.0	15.9	15.3	14.6
18 to 19 years	12.8	12.4	12.4	11.2	11.8	11.7	12.1	13.8	12.4	12.3	12.1	11.4	12.8	12.1	11.4
20 to 24 years	7.9	7.5	7.5	7.5	7.6	7.6	7.3	7.2	7.7	7.7	7.4	7.4	7.5	7.6	7.2
25 years and over	3.4	3.1	3.3	3.2	3.2	3.2	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0	2.9
25 to 54 years	3.5	3.2	3.3	3.2	3.3	3.3	3.2	3.2	3.1	3.1	3.0	3.1	3.0	3.0	3.0
55 years and over	2.7	2.8	2.9	2.7	3.0	2.9	2.7	2.6	2.7	2.6	2.7	2.8	3.0	2.7	2.4
Men, 16 years and over	4.4	4.1	4.1	4.2	4.1	4.1	4.1	4.0	4.1	4.0	4.0	3.9	4.1	3.8	3.8
16 to 24 years	11.1	10.3	10.5	10.2	10.5	10.2	9.9	9.9	10.4	10.2	10.6	9.7	10.3	9.2	9.6
16 to 19 years	16.2	14.7	14.8	13.9	14.3	13.8	13.9	14.6	14.2	14.9	15.2	14.0	15.5	12.4	13.6
16 to 17 years	19.1	17.0	18.3	17.6	16.8	16.1	16.2	16.6	15.5	16.9	17.7	14.3	17.3	15.1	15.8
18 to 19 years	14.1	13.1	12.6	11.5	12.7	12.2	12.6	13.2	13.2	13.6	13.5	13.7	13.9	10.5	12.4
20 to 24 years	8.1	7.7	7.9	8.0	8.3	8.1	7.6	7.2	8.2	7.5	7.8	7.2	7.3	7.4	7.3
25 years and over	3.2	3.0	3.0	3.1	3.0	3.0	3.1	3.0	2.9	2.8	2.8	2.8	2.9	2.8	2.7
25 to 54 years	3.3	3.0	3.0	3.1	3.0	3.0	3.1	3.0	3.0	2.9	2.9	2.9	2.9	2.8	2.7
55 years and over	2.8	2.8	2.7	2.8	2.7	3.0	2.9	2.9	2.8	2.6	2.5	2.5	2.8	2.8	2.7
Women, 16 years and over	4.6	4.3	4.6	4.2	4.4	4.4	4.3	4.3	4.2	4.2	4.1	4.2	4.1	4.3	4.0
16 to 24 years	9.8	9.5	9.5	8.9	9.1	9.1	9.3	10.0	9.6	9.8	8.9	8.9	9.6	10.2	8.9
16 to 19 years	12.9	13.2	13.4	12.2	13.0	12.6	13.2	14.7	13.4	13.0	12.2	11.1	12.6	14.4	11.6
16 to 17 years	15.1	15.5	14.8	14.5	15.7	14.7	15.6	15.6	16.3	16.1	15.1	13.7	14.3	15.4	13.3
18 to 19 years	11.5	11.6	12.1	10.9	10.9	11.2	11.6	14.5	11.4	10.8	10.5	8.9	11.6	13.7	10.4
20 to 24 years	7.8	7.2	7.1	6.9	6.8	7.1	7.0	7.2	7.2	7.9	7.0	7.6	7.8	7.7	7.2
25 years and over	3.6	3.3	3.6	3.3	3.5	3.5	3.3	3.2	3.1	3.1	3.2	3.2	3.0	3.2	3.0
25 to 54 years	3.8	3.4	3.7	3.4	3.5	3.6	3.4	3.4	3.2	3.3	3.2	3.3	3.0	3.3	3.2
55 years and over	2.6	2.8	3.1	2.6	3.3	2.9	2.4	2.1	2.5	2.6	2.9	3.1	3.3	2.7	2.0

10. Unemployment rates by State, seasonally adjusted

State	Mar. 1999	Feb. 2000	Mar. 2000[P]	State	Mar. 1999	Feb. 2000	Mar. 2000[P]
Alabama	4.7	4.6	4.2	Missouri	3.6	2.6	2.9
Alaska	6.6	5.8	6.0	Montana	5.4	4.8	4.8
Arizona	4.5	3.9	3.9	Nebraska	3.0	2.7	2.4
Arkansas	4.6	4.7	4.7	Nevada	4.3	3.7	3.8
California	5.5	4.6	4.9	New Hampshire	3.0	2.6	2.1
Colorado	3.0	2.8	2.7	New Jersey	4.7	4.1	3.7
Connecticut	3.3	2.5	2.3	New Mexico	5.6	5.5	5.4
Delaware	3.6	3.5	3.2	New York	5.2	4.7	4.6
District of Columbia	6.7	5.5	5.7	North Carolina	3.1	3.4	3.4
Florida	3.9	3.7	3.7	North Dakota	3.7	3.1	2.9
Georgia	4.2	3.4	3.4	Ohio	4.2	4.3	3.9
Hawaii	6.0	4.7	4.7	Oklahoma	3.8	2.9	3.1
Idaho	5.6	4.4	4.1	Oregon	6.0	4.9	4.7
Illinois	4.1	4.3	4.4	Pennsylvania	4.5	4.2	3.9
Indiana	3.0	3.2	3.2	Rhode Island	4.0	3.8	3.7
Iowa	2.7	2.2	2.1	South Carolina	4.4	4.1	3.7
Kansas	2.9	3.3	3.2	South Dakota	3.1	2.4	2.1
Kentucky	4.7	4.2	3.8	Tennessee	4.2	3.5	3.5
Louisiana	5.5	4.8	5.2	Texas	4.6	4.5	4.6
Maine	4.2	3.4	3.5	Utah	4.1	3.0	2.8
Maryland	3.8	3.0	3.0	Vermont	3.2	2.8	2.4
Massachusetts	3.1	3.1	2.4	Virginia	2.7	2.7	2.7
Michigan	3.9	2.7	2.8	Washington	4.8	4.7	4.5
Minnesota	2.9	2.6	2.7	West Virginia	6.9	5.7	5.1
Mississippi	5.2	5.6	5.5	Wisconsin	3.1	2.8	3.1
				Wyoming	5.0	4.2	4.0

[P] = preliminary

11. Employment of workers on nonfarm payrolls by State, seasonally adjusted

[In thousands]

State	Mar. 1999	Feb. 2000	Mar. 2000[P]	State	Mar. 1999	Feb. 2000	Mar. 2000[P]
Alabama	1,916.0	1,946.9	1,947.9	Missouri	2,711.5	2,738.4	2,746.1
Alaska	276.0	278.7	279.8	Montana	379.9	386.2	389.8
Arizona	2,128.5	2,222.5	2,226.6	Nebraska	886.6	893.5	895.1
Arkansas	1,136.6	1,162.3	1,163.4	Nevada	970.6	1,008.7	1,012.4
California	13,855.5	14,252.5	14,268.1	New Hampshire	601.4	612.4	612.2
Colorado	2,106.9	2,182.1	2,189.9	New Jersey	3,846.4	3,902.0	3,912.3
Connecticut	1,665.1	1,686.8	1,692.6	New Mexico	726.2	737.2	740.5
Delaware	410.1	419.6	421.2	New York	8,399.6	8,566.2	8,578.7
District of Columbia	614.9	621.2	619.8	North Carolina	3,853.4	3,896.6	3,912.3
Florida	6,795.9	7,061.0	7,086.5	North Dakota	321.2	324.4	325.0
Georgia	3,838.3	3,974.1	3,997.3	Ohio	5,529.6	5,593.0	5,595.0
Hawaii	529.5	537.2	539.6	Oklahoma	1,456.0	1,480.5	1,482.1
Idaho	532.9	551.5	555.2	Oregon	1,566.4	1,592.7	1,587.2
Illinois	5,943.4	5,985.5	6,001.1	Pennsylvania	5,566.4	5,608.8	5,626.0
Indiana	2,951.8	2,986.4	2,988.1	Rhode Island	461.8	468.8	468.6
Iowa	1,464.4	1,481.2	1,485.2	South Carolina	1,819.4	1,862.2	1,866.1
Kansas	1,324.7	1,339.6	1,343.1	South Dakota	369.7	378.8	380.8
Kentucky	1,781.4	1,825.9	1,827.9	Tennessee	2,666.0	2,697.8	2,716.7
Louisiana	1,896.0	1,905.1	1,909.7	Texas	9,125.9	9,306.5	9,351.5
Maine	582.7	597.7	599.0	Utah	1,041.1	1,065.6	1,067.4
Maryland	2,367.5	2,424.6	2,433.9	Vermont	289.4	294.6	295.9
Massachusetts	3,214.2	3,273.9	3,275.1	Virginia	3,390.1	3,458.4	3,461.0
Michigan	4,515.5	4,548.0	4,554.1	Washington	2,635.3	2,658.7	2,678.9
Minnesota	2,592.1	2,648.2	2,649.2	West Virginia	724.7	729.1	734.4
Mississippi	1,148.9	1,158.9	1,159.9	Wisconsin	2,766.1	2,801.0	2,811.1
				Wyoming	232.2	236.1	235.8

[P] = preliminary

NOTE: Some data in this table may differ from data published elsewhere because of the continual updating of the data base.

12. Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.[p]	Apr.[p]
TOTAL	125,826	128,615	128,134	128,162	128,443	128,816	128,945	129,048	129,332	129,589	129,898	130,292	130,319	130,777	131,117
PRIVATE SECTOR	106,007	108,455	108,035	108,085	108,338	108,663	108,735	108,830	109,095	109,320	109,583	109,927	109,937	110,237	110,470
GOODS-PRODUCING	25,347	25,240	25,288	25,199	25,180	25,247	25,148	25,186	25,198	25,257	25,283	25,410	25,382	25,471	25,431
Mining	590	535	538	531	526	528	524	527	528	527	529	530	532	536	540
Metal mining	50	49	49	49	48	48	47	48	48	49	48	49	48	48	48
Oil and gas extraction	339	293	294	287	285	285	285	287	289	288	291	292	296	301	305
Nonmetallic minerals, except fuels	109	109	109	109	109	110	109	109	109	108	108	108	108	108	108
Construction	5,985	6,273	6,277	6,239	6,258	6,270	6,246	6,293	6,314	6,369	6,393	6,504	6,484	6,574	6,519
General building contractors	1,372	1,434	1,428	1,427	1,430	1,432	1,426	1,440	1,445	1,450	1,454	1,474	1,480	1,492	1,482
Heavy construction, except building	838	862	874	854	857	857	852	857	861	870	878	900	881	903	889
Special trades contractors	3,744	3,978	3,975	3,958	3,971	3,981	3,968	3,996	4,008	4,049	4,061	4,130	4,123	4,179	4,148
Manufacturing	18,772	18,432	18,473	18,429	18,396	18,449	18,378	18,366	18,356	18,361	18,361	18,376	18,366	18,361	18,372
Production workers	12,930	12,662	12,696	12,662	12,623	12,691	12,622	12,617	12,608	12,613	12,613	12,627	12,617	12,602	12,612
Durable goods	11,170	10,985	10,993	10,971	10,960	11,015	10,975	10,959	10,952	10,954	10,960	10,973	10,973	10,977	10,987
Production workers	7,643	7,511	7,519	7,504	7,487	7,549	7,513	7,496	7,489	7,487	7,485	7,505	7,507	7,501	7,509
Lumber and wood products	813	826	824	824	824	826	826	827	829	829	828	827	830	827	826
Furniture and fixtures	530	540	536	537	538	546	543	544	546	544	543	543	545	545	546
Stone, clay, and glass products	563	569	570	569	568	571	568	569	568	571	574	577	574	577	575
Primary metal industries	712	690	691	689	687	692	688	685	685	686	687	686	687	689	688
Fabricated metal products	1,501	1,489	1,489	1,487	1,485	1,493	1,484	1,486	1,487	1,489	1,489	1,491	1,493	1,496	1,501
Industrial machinery and equipment	2,203	2,129	2,132	2,129	2,128	2,131	2,122	2,117	2,116	2,118	2,120	2,115	2,118	2,111	2,112
Computer and office equipment	379	360	361	362	364	360	359	358	358	358	359	357	356	352	350
Electronic and other electrical equipment	1,704	1,661	1,658	1,658	1,657	1,667	1,662	1,662	1,665	1,661	1,664	1,671	1,679	1,677	1,685
Electronic components and accessories	660	639	635	635	637	639	641	640	643	643	645	647	652	652	656
Transportation equipment	1,884	1,855	1,864	1,853	1,849	1,863	1,859	1,848	1,838	1,834	1,831	1,841	1,828	1,835	1,832
Motor vehicles and equipment	990	1,000	996	996	998	1,014	1,012	1,006	1,001	1,000	1,001	1,010	1,014	1,009	1,010
Aircraft and parts	524	490	503	498	491	488	483	476	471	467	464	463	447	460	456
Instruments and related products	868	839	842	839	837	840	836	833	830	833	833	830	829	831	832
Miscellaneous manufacturing industries	393	387	387	386	387	386	387	388	388	389	391	392	390	389	390
Nondurable goods	7,602	7,446	7,480	7,458	7,436	7,434	7,403	7,407	7,404	7,407	7,401	7,403	7,393	7,384	7,385
Production workers	5,287	5,151	5,177	5,158	5,136	5,142	5,109	5,121	5,119	5,126	5,128	5,122	5,110	5,101	5,103
Food and kindred products	1,686	1,685	1,689	1,688	1,680	1,681	1,666	1,679	1,680	1,686	1,686	1,689	1,680	1,679	1,684
Tobacco products	41	39	38	38	39	39	36	38	38	39	38	38	38	35	38
Textile mill products	598	562	567	563	560	559	557	553	551	553	551	549	550	549	548
Apparel and other textile products	763	684	698	691	686	679	672	669	666	663	662	657	657	657	655
Paper and allied products	675	659	662	661	659	659	658	657	655	655	655	654	653	652	651
Printing and publishing	1,565	1,553	1,555	1,551	1,552	1,554	1,553	1,552	1,552	1,549	1,547	1,550	1,551	1,551	1,552
Chemicals and allied products	1,043	1,035	1,038	1,036	1,033	1,032	1,030	1,033	1,033	1,033	1,030	1,034	1,034	1,033	1,034
Petroleum and coal products	140	137	139	138	137	138	136	137	136	136	135	136	136	136	135
Rubber and miscellaneous plastics products	1,009	1,019	1,019	1,018	1,016	1,021	1,022	1,017	1,021	1,022	1,026	1,025	1,024	1,022	1,019
Leather and leather products	83	74	75	74	74	72	73	72	72	71	71	71	70	70	69
SERVICE-PRODUCING	100,480	103,375	102,846	102,963	103,263	103,569	103,797	103,862	104,134	104,332	104,615	104,882	104,937	105,306	105,686
Transportation and public utilities	6,600	6,792	6,750	6,758	6,781	6,799	6,813	6,831	6,841	6,862	6,897	6,902	6,898	6,914	6,937
Transportation	4,276	4,425	4,397	4,402	4,423	4,438	4,445	4,455	4,458	4,474	4,501	4,507	4,499	4,512	4,539
Railroad transportation	231	230	234	233	233	230	226	227	227	226	227	226	226	222	223
Local and interurban passenger transit	468	482	483	480	483	483	488	486	486	487	487	491	490	489	495
Trucking and warehousing	1,745	1,813	1,800	1,802	1,810	1,817	1,817	1,825	1,828	1,839	1,845	1,849	1,841	1,848	1,858
Water transportation	180	181	180	180	181	182	182	182	182	180	182	181	185	185	187
Transportation by air	1,183	1,237	1,220	1,226	1,234	1,240	1,246	1,250	1,251	1,257	1,273	1,277	1,271	1,280	1,283
Pipelines, except natural gas	14	13	14	13	13	13	13	13	13	13	13	13	13	13	13
Transportation services	455	469	466	468	469	473	473	472	471	472	474	470	473	475	480
Communications and public utilities	2,324	2,366	2,353	2,356	2,358	2,361	2,368	2,376	2,383	2,388	2,396	2,395	2,399	2,402	2,398
Communications	1,469	1,522	1,508	1,513	1,513	1,519	1,525	1,533	1,541	1,546	1,553	1,552	1,561	1,565	1,562
Electric, gas, and sanitary services	855	845	845	843	845	842	843	843	842	842	843	843	838	837	836
Wholesale trade	6,831	7,004	6,965	6,977	6,993	7,012	7,031	7,041	7,064	7,070	7,088	7,108	7,121	7,142	7,145
Retail trade	22,296	22,787	22,724	22,748	22,796	22,903	22,888	22,862	22,891	22,902	22,973	23,018	23,016	23,041	23,160
Building materials and garden supplies	948	987	982	979	982	986	988	992	1,001	1,004	1,007	1,012	1,017	1,030	1,022
General merchandise stores	2,730	2,775	2,799	2,784	2,782	2,778	2,774	2,762	2,756	2,753	2,793	2,798	2,775	2,766	2,766
Department stores	2,426	2,472	2,499	2,486	2,482	2,476	2,468	2,460	2,455	2,450	2,479	2,477	2,470	2,461	2,463

See footnotes at end of table.

12. Continued—Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.[P]	Apr.[P]
Food stores	3,482	3,483	3,492	3,487	3,479	3,478	3,484	3,478	3,481	3,480	3,482	3,481	3,484	3,478	3,498
Automotive dealers and service stations	2,341	2,406	2,399	2,400	2,403	2,407	2,409	2,415	2,420	2,424	2,432	2,445	2,442	2,454	2,455
New and used car dealers	1,048	1,081	1,074	1,077	1,080	1,085	1,089	1,091	1,092	1,096	1,097	1,100	1,103	1,108	1,109
Apparel and accessory stores	1,143	1,180	1,163	1,172	1,178	1,192	1,191	1,189	1,200	1,198	1,177	1,178	1,193	1,195	1,204
Furniture and home furnishings stores	1,026	1,085	1,081	1,084	1,091	1,090	1,094	1,097	1,099	1,095	1,102	1,102	1,107	1,115	1,119
Eating and drinking places	7,760	7,904	7,863	7,880	7,911	7,989	7,960	7,932	7,925	7,943	7,986	7,987	7,980	7,981	8,061
Miscellaneous retail establishments	2,867	2,968	2,945	2,962	2,970	2,983	2,988	2,997	3,009	3,005	2,994	3,015	3,018	3,022	3,035
Finance, insurance, and real estate	7,407	7,632	7,611	7,621	7,636	7,647	7,650	7,653	7,668	7,675	7,685	7,685	7,698	7,689	7,696
Finance	3,593	3,706	3,697	3,706	3,709	3,715	3,716	3,715	3,719	3,723	3,727	3,726	3,732	3,726	3,732
Depository institutions	2,042	2,047	2,050	2,047	2,045	2,044	2,046	2,047	2,047	2,044	2,040	2,040	2,038	2,034	2,036
Commercial banks	1,468	1,465	1,467	1,465	1,463	1,462	1,464	1,466	1,464	1,460	1,458	1,458	1,457	1,456	1,455
Savings institutions	258	256	257	256	256	256	255	255	254	254	252	251	250	247	247
Nondepository institutions	658	714	716	720	721	721	719	713	711	711	713	708	708	701	699
Security and commodity brokers	645	679	668	672	676	682	685	686	691	697	702	705	712	717	725
Holding and other investment offices	248	266	263	267	267	268	266	269	270	271	272	273	274	274	272
Insurance	2,344	2,402	2,395	2,399	2,402	2,404	2,407	2,410	2,414	2,411	2,416	2,406	2,412	2,410	2,412
Insurance carriers	1,598	1,635	1,631	1,635	1,638	1,635	1,636	1,637	1,641	1,636	1,639	1,632	1,636	1,633	1,634
Insurance agents, brokers, and service	746	767	764	764	764	769	771	773	773	775	777	774	776	777	778
Real estate	1,471	1,525	1,519	1,516	1,525	1,528	1,527	1,528	1,535	1,541	1,542	1,553	1,554	1,553	1,552
Services[1]	37,526	39,000	38,697	38,782	38,952	39,055	39,205	39,257	39,433	39,554	39,657	39,804	39,822	39,980	40,101
Agricultural services	706	759	755	751	757	760	757	763	766	774	765	788	782	799	798
Hotels and other lodging places	1,776	1,799	1,791	1,786	1,797	1,807	1,813	1,811	1,806	1,812	1,807	1,800	1,805	1,822	1,835
Personal services	1,195	1,206	1,204	1,189	1,200	1,207	1,207	1,210	1,210	1,214	1,225	1,231	1,228	1,234	1,235
Business services	8,584	9,123	9,010	9,047	9,088	9,148	9,186	9,204	9,303	9,336	9,392	9,416	9,424	9,482	9,537
Services to buildings	950	988	978	979	984	992	998	1,000	1,003	1,003	1,000	999	1,003	1,008	1,004
Personnel supply services	3,230	3,405	3,350	3,366	3,387	3,422	3,418	3,440	3,490	3,501	3,513	3,505	3,523	3,556	3,613
Help supply services	2,872	3,017	2,975	2,986	3,000	3,025	3,024	3,032	3,099	3,097	3,108	3,100	3,119	3,148	3,194
Computer and data processing services	1,599	1,781	1,749	1,765	1,781	1,794	1,806	1,814	1,823	1,829	1,842	1,852	1,859	1,868	1,876
Auto repair services and parking	1,144	1,185	1,178	1,182	1,184	1,185	1,185	1,190	1,196	1,197	1,198	1,202	1,202	1,196	1,196
Miscellaneous repair services	382	397	396	398	395	395	396	398	400	400	405	403	406	407	407
Motion pictures	573	600	587	604	611	609	608	608	612	613	609	616	609	608	617
Amusement and recreation services	1,601	1,696	1,668	1,675	1,695	1,694	1,712	1,713	1,730	1,734	1,725	1,759	1,762	1,763	1,778
Health services	9,846	9,973	9,951	9,954	9,964	9,975	9,993	9,999	10,009	10,026	10,038	10,057	10,059	10,071	10,078
Offices and clinics of medical doctors	1,803	1,865	1,856	1,860	1,864	1,868	1,874	1,876	1,880	1,885	1,886	1,895	1,898	1,907	1,912
Nursing and personal care facilities	1,762	1,755	1,753	1,755	1,755	1,754	1,755	1,756	1,756	1,756	1,759	1,760	1,762	1,763	1,763
Hospitals	3,926	3,970	3,966	3,966	3,969	3,968	3,973	3,977	3,978	3,978	3,985	3,992	3,989	3,990	3,987
Home health care services	672	655	656	653	653	655	658	657	658	658	659	658	656	653	654
Legal services	973	1,002	998	999	1,002	1,000	1,004	1,007	1,009	1,012	1,015	1,017	1,014	1,014	1,010
Educational services	2,177	2,270	2,254	2,265	2,272	2,278	2,288	2,289	2,288	2,298	2,304	2,297	2,298	2,321	2,332
Social services	2,644	2,782	2,755	2,760	2,778	2,763	2,799	2,803	2,817	2,840	2,850	2,872	2,876	2,889	2,900
Child day care services	605	632	628	629	633	632	631	631	634	646	650	657	655	660	659
Residential care	747	781	772	775	777	781	785	788	792	796	801	803	807	810	816
Museums and botanical and zoological gardens	93	94	94	93	94	94	95	94	95	96	95	96	95	96	98
Membership organizations	2,361	2,402	2,392	2,394	2,409	2,403	2,409	2,408	2,409	2,411	2,418	2,420	2,420	2,422	2,420
Engineering and management services	3,185	3,420	3,370	3,391	3,411	3,441	3,458	3,464	3,487	3,496	3,515	3,532	3,544	3,558	3,561
Engineering and architectural services	905	944	939	940	942	948	948	948	954	959	964	973	976	977	980
Management and public relations	1,034	1,158	1,133	1,143	1,153	1,165	1,178	1,180	1,193	1,196	1,213	1,220	1,218	1,225	1,226
Government	19,819	20,160	20,099	20,077	20,105	20,153	20,210	20,218	20,237	20,269	20,315	20,365	20,382	20,540	20,647
Federal	2,686	2,669	2,688	2,666	2,664	2,656	2,651	2,654	2,643	2,648	2,645	2,665	2,702	2,818	2,887
Federal, except Postal Service	1,819	1,796	1,809	1,788	1,789	1,779	1,779	1,785	1,780	1,780	1,780	1,799	1,836	1,953	2,022
State	4,612	4,695	4,688	4,677	4,675	4,682	4,706	4,717	4,722	4,729	4,730	4,727	4,725	4,733	4,739
Education	1,916	1,953	1,955	1,941	1,934	1,947	1,965	1,965	1,960	1,967	1,969	1,967	1,962	1,967	1,969
Other State government	2,695	2,743	2,733	2,736	2,741	2,735	2,741	2,752	2,762	2,762	2,761	2,760	2,763	2,766	2,770
Local	12,521	12,796	12,723	12,734	12,766	12,815	12,853	12,847	12,872	12,892	12,940	12,973	12,955	12,989	13,021
Education	7,082	7,265	7,206	7,225	7,239	7,268	7,308	7,295	7,305	7,318	7,351	7,365	7,347	7,365	7,398
Other local government	5,440	5,531	5,517	5,509	5,527	5,547	5,545	5,552	5,567	5,574	5,589	5,608	5,608	5,624	5,623

[1] Includes other industries not shown separately.

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

13. Average weekly hours of production or nonsupervisory workers on private nonfarm payrolls, by industry, monthly data seasonally adjusted

Industry	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.[p]	Apr.[p]
PRIVATE SECTOR	34.6	34.5	34.4	34.4	34.5	34.5	34.5	34.4	34.5	34.5	34.5	34.6	34.5	34.5	34.6
GOODS-PRODUCING	41.0	41.0	40.9	41.0	41.2	41.2	41.1	41.1	41.1	41.3	40.9	41.1	41.3	41.2	41.4
MINING	43.9	43.8	43.8	44.1	44.0	45.1	44.2	44.3	44.1	44.2	44.2	44.9	44.7	44.7	45.0
MANUFACTURING	41.7	41.7	41.6	41.7	41.7	41.9	41.8	41.8	41.8	41.7	41.6	41.7	41.8	41.7	42.1
Overtime hours	4.6	4.6	4.3	4.6	4.7	4.7	4.7	4.7	4.7	4.6	4.6	4.7	4.8	4.6	4.9
Durable goods	42.3	42.2	42.1	42.2	42.3	42.5	42.4	42.4	42.3	42.2	42.1	42.3	42.4	42.3	42.7
Overtime hours	4.8	4.8	4.3	4.7	4.8	4.9	4.9	4.9	4.8	4.7	4.8	4.8	4.9	4.8	5.1
Lumber and wood products	41.1	41.2	41.2	41.2	41.1	41.1	41.3	41.1	41.1	41.1	40.9	41.1	41.0	40.8	40.9
Furniture and fixtures	40.6	40.3	40.4	40.4	40.4	40.6	40.3	40.4	40.2	39.9	40.0	40.2	40.4	40.3	40.8
Stone, clay, and glass products	43.5	43.4	43.1	43.4	43.4	43.6	43.6	43.6	43.4	43.9	43.3	43.6	43.5	43.3	43.4
Primary metal industries	44.2	44.2	44.0	44.3	44.3	44.5	44.4	44.4	44.3	44.3	44.4	44.5	44.5	44.4	44.8
Blast furnaces and basic steel products	44.6	44.8	44.5	44.8	45.2	45.2	45.1	45.0	45.0	45.3	45.5	45.1	45.5	45.0	44.7
Fabricated metal products	42.3	42.2	41.8	42.1	42.1	42.3	42.4	42.3	42.1	42.1	41.9	42.3	42.5	42.4	43.0
Industrial machinery and equipment	42.8	42.2	41.9	42.1	42.0	42.4	42.4	42.4	42.4	42.2	42.2	42.5	42.4	42.4	42.9
Electronic and other electrical equipment	41.4	41.4	41.1	41.5	41.5	41.7	41.7	41.6	41.6	41.4	41.2	41.4	41.6	41.9	42.3
Transportation equipment	43.4	43.8	44.0	43.5	44.2	44.4	44.0	44.0	43.9	43.5	43.3	43.7	44.1	43.8	44.3
Motor vehicles and equipment	43.5	45.0	45.1	44.4	45.4	46.0	45.2	45.2	45.3	44.7	44.4	45.1	45.1	44.7	45.5
Instruments and related products	41.3	41.5	41.6	41.6	41.5	41.7	41.6	41.6	41.5	41.5	41.6	41.2	41.2	41.1	41.5
Miscellaneous manufacturing	39.9	39.9	39.6	40.2	40.0	40.1	40.1	40.0	39.8	39.6	39.9	39.4	39.5	39.4	39.8
Nondurable goods	40.9	40.9	40.9	41.0	41.0	41.1	40.9	40.9	41.0	41.0	40.9	40.9	41.0	40.8	41.3
Overtime hours	4.3	4.4	4.2	4.4	4.5	4.5	4.4	4.4	4.5	4.4	4.5	4.4	4.5	4.3	4.6
Food and kindred products	41.7	41.8	41.9	41.8	41.8	42.0	41.6	41.7	42.0	41.9	41.6	41.6	41.5	41.5	41.9
Textile mill products	41.0	40.9	41.0	41.0	40.6	41.3	40.9	40.8	41.3	41.2	41.2	40.9	41.8	41.5	41.8
Apparel and other textile products	37.3	37.4	37.5	37.8	37.7	37.5	37.3	37.5	37.5	37.3	37.4	37.6	37.8	37.7	38.1
Paper and allied products	43.4	43.5	43.6	43.5	43.5	43.5	43.7	43.5	43.5	43.5	43.2	43.3	43.5	43.2	43.6
Printing and publishing	38.3	38.2	38.1	38.3	38.3	38.4	38.3	38.3	38.4	38.3	38.2	38.3	38.3	38.1	38.6
Chemicals and allied products	43.2	43.0	43.0	43.0	43.0	43.1	43.3	43.2	43.1	43.1	43.1	43.0	42.8	42.5	42.9
Rubber and miscellaneous plastics products	41.7	41.7	41.5	41.9	41.8	41.7	41.6	41.7	41.5	41.5	41.3	41.7	41.5	41.3	42.1
Leather and leather products	37.6	37.7	38.1	38.4	37.9	37.9	38.2	37.2	37.5	37.6	36.8	37.5	38.1	38.0	38.7
SERVICE-PRODUCING	32.9	32.8	32.8	32.8	32.8	32.9	32.9	32.8	32.8	32.8	32.9	32.9	32.8	32.9	32.9
TRANSPORTATION AND PUBLIC UTILITIES	39.5	38.7	39.0	38.8	38.9	38.7	38.9	38.6	38.5	38.2	38.5	38.4	38.3	38.3	38.6
WHOLESALE TRADE	38.4	38.4	38.4	38.3	38.4	38.4	38.4	38.5	38.6	38.4	38.5	38.6	38.4	38.5	38.8
RETAIL TRADE	29.0	29.0	29.0	29.1	29.1	29.1	29.0	28.8	28.9	28.9	29.1	29.2	29.0	29.1	29.0

[p] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

14. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry, seasonally adjusted

Industry	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.[p]	Apr.[p]
PRIVATE SECTOR (in current dollars)	$ 12.78	$ 13.24	$13.14	$13.18	$13.24	$13.28	$13.29	$13.35	$13.39	$13.40	$13.44	$13.49	$13.54	$13.58	$13.64
Goods-producing	14.34	14.82	14.67	14.75	14.85	14.90	14.90	14.93	14.97	14.99	15.03	15.10	15.17	15.21	15.28
Mining	16.90	17.04	16.87	17.05	16.96	17.23	17.12	17.09	17.09	16.93	17.01	17.01	17.04	17.14	17.21
Construction	16.59	17.13	16.97	17.08	17.16	17.18	17.15	17.21	17.27	17.31	17.42	17.44	17.55	17.62	17.72
Manufacturing	13.49	13.91	13.79	13.85	13.95	14.02	14.03	14.04	14.07	14.06	14.09	14.15	14.21	14.22	14.30
Excluding overtime	12.79	13.18	13.09	13.13	13.20	13.26	13.28	13.29	13.33	13.32	13.35	13.42	13.45	13.48	13.51
Service-producing	12.27	12.74	12.65	12.68	12.73	12.77	12.79	12.85	12.89	12.90	12.95	12.98	13.03	13.07	13.13
Transportation and public utilities	15.31	15.67	15.60	15.65	15.65	15.70	15.70	15.76	15.76	15.81	15.94	15.87	15.98	16.04	16.11
Wholesale trade	14.06	14.59	14.44	14.48	14.56	14.61	14.63	14.74	14.80	14.81	14.88	14.99	14.94	15.01	15.00
Retail trade	8.73	9.08	9.03	9.04	9.06	9.10	9.13	9.15	9.18	9.20	9.26	9.26	9.31	9.34	9.39
Finance, insurance, and real estate	14.06	14.61	14.58	14.60	14.62	14.68	14.63	14.70	14.72	14.73	14.75	14.88	14.85	14.94	14.98
Services	12.85	13.38	13.28	13.33	13.38	13.42	13.44	13.49	13.55	13.55	13.60	13.64	13.69	13.73	13.79
PRIVATE SECTOR (in constant (1982) dollars)	7.75	7.86	7.83	7.85	7.89	7.88	7.87	7.86	7.87	7.86	7.87	7.88	7.87	7.84	–

– Data not available.

[p] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

15. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry

Industry	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.[P]	Apr.[P]
PRIVATE SECTOR	$12.78	$13.24	$13.16	$13.19	$13.14	$13.15	$13.20	$13.38	$13.41	$13.43	$13.47	$13.58	$13.58	$13.60	$13.71
MINING	16.90	17.04	16.93	17.00	16.93	17.12	17.01	17.10	17.00	16.95	17.13	17.24	17.13	17.17	17.22
CONSTRUCTION	16.59	17.13	16.85	17.02	17.08	17.22	17.26	17.41	17.49	17.37	17.42	17.34	17.37	17.48	17.60
MANUFACTURING	13.49	13.91	13.80	13.85	13.91	13.92	13.95	14.11	14.04	14.08	14.21	14.19	14.19	14.22	14.30
Durable goods	13.98	14.40	14.27	14.34	14.40	14.38	14.47	14.63	14.55	14.58	14.73	14.72	14.73	14.76	14.83
Lumber and wood products	11.10	11.46	11.37	11.42	11.45	11.52	11.53	11.55	11.59	11.59	11.63	11.66	11.62	11.62	11.72
Furniture and fixtures	10.90	11.23	11.14	11.14	11.16	11.24	11.28	11.33	11.33	11.35	11.46	11.46	11.50	11.57	11.61
Stone, clay, and glass products	13.60	13.90	13.75	13.87	13.94	14.00	13.97	14.12	14.02	14.07	14.00	13.98	14.00	14.06	14.23
Primary metal industries	15.49	15.85	15.62	15.75	15.91	16.03	15.99	16.20	16.02	16.14	16.19	16.22	16.30	16.36	16.55
Blast furnaces and basic steel products	18.43	18.87	18.59	18.79	19.05	19.12	18.99	19.05	18.96	19.18	19.16	19.23	19.40	19.59	19.86
Fabricated metal products	13.06	13.46	13.36	13.45	13.46	13.45	13.50	13.61	13.50	13.57	13.70	13.69	13.65	13.67	13.69
Industrial machinery and equipment	14.47	15.01	14.85	14.95	14.99	15.07	15.13	15.23	15.18	15.21	15.36	15.39	15.40	15.42	15.44
Electronic and other electrical equipment	13.09	13.45	13.31	13.38	13.40	13.49	13.51	13.62	13.58	13.59	13.70	13.74	13.70	13.68	13.78
Transportation equipment	17.53	18.10	17.88	17.98	18.20	17.94	18.23	18.56	18.47	18.46	18.78	18.64	18.65	18.77	18.87
Motor vehicles and equipment	17.86	18.48	18.31	18.40	18.68	18.23	18.61	19.04	18.93	18.87	19.29	19.07	19.10	19.23	19.38
Instruments and related products	13.81	14.17	14.07	14.10	14.13	14.25	14.28	14.30	14.36	14.34	14.40	14.38	14.41	14.42	14.47
Miscellaneous manufacturing	10.89	11.33	11.25	11.25	11.30	11.32	11.34	11.46	11.47	11.43	11.57	11.54	11.55	11.57	11.63
Nondurable goods	12.76	13.17	13.09	13.11	13.15	13.22	13.18	13.35	13.27	13.33	13.41	13.39	13.37	13.40	13.49
Food and kindred products	11.80	12.10	12.07	12.11	12.16	12.15	12.08	12.19	12.10	12.20	12.29	12.24	12.24	12.29	12.42
Tobacco products	18.55	19.07	19.99	20.63	20.79	21.15	20.99	18.88	17.77	17.96	17.97	17.16	17.40	18.83	19.05
Textile mill products	10.39	10.71	10.68	10.69	10.76	10.71	10.72	10.78	10.72	10.80	10.84	10.84	10.85	10.86	10.93
Apparel and other textile products	8.52	8.86	8.83	8.81	8.89	8.83	8.88	9.01	8.99	8.98	9.03	9.02	9.02	9.05	9.04
Paper and allied products	15.51	15.97	15.83	15.91	15.98	16.05	15.98	16.27	16.12	16.12	16.15	16.05	16.02	16.04	16.19
Printing and publishing	13.45	13.83	13.73	13.74	13.73	13.80	13.82	13.97	13.97	14.01	14.11	14.10	14.13	14.19	14.21
Chemicals and allied products	17.12	17.47	17.27	17.39	17.35	17.49	17.51	17.78	17.72	17.75	17.79	17.81	17.78	17.75	17.96
Petroleum and coal products	20.92	21.46	21.49	21.05	21.14	21.35	21.29	21.62	21.68	21.83	21.83	21.68	22.08	22.27	21.94
Rubber and miscellaneous plastics products	11.87	12.31	12.23	12.21	12.25	12.35	12.32	12.46	12.37	12.41	12.51	12.55	12.51	12.52	12.63
Leather and leather products	9.32	9.69	9.59	9.59	9.57	9.61	9.77	9.86	9.83	9.84	9.92	9.99	9.86	9.91	10.05
TRANSPORTATION AND PUBLIC UTILITIES	15.31	15.67	15.57	15.55	15.56	15.66	15.67	15.78	15.76	15.87	15.94	15.95	16.02	16.01	16.14
WHOLESALE TRADE	14.06	14.59	14.48	14.53	14.44	14.55	14.65	14.73	14.78	14.82	14.91	15.06	14.95	14.94	15.13
RETAIL TRADE	8.73	9.08	9.03	9.03	9.02	9.02	9.04	9.18	9.20	9.21	9.25	9.33	9.34	9.36	9.42
FINANCE, INSURANCE, AND REAL ESTATE	14.06	14.61	14.61	14.72	14.50	14.53	14.61	14.63	14.68	14.73	14.75	14.97	14.92	14.96	15.15
SERVICES	12.85	13.38	13.32	13.34	13.23	13.20	13.25	13.48	13.54	13.60	13.69	13.81	13.80	13.81	13.89

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

16. Average weekly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry

Industry	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.[P]	Apr.[P]
PRIVATE SECTOR															
Current dollars	$442.19	$456.78	$451.39	$456.37	$454.64	$456.31	$463.32	$458.93	$463.99	$463.34	$466.06	$467.15	$464.44	$465.12	$474.37
Seasonally adjusted	–	–	452.02	453.39	456.78	458.16	458.51	459.24	461.96	462.30	463.68	466.75	467.13	468.51	471.94
Constant (1982) dollars	268.32	271.25	268.84	271.65	270.62	270.81	274.15	269.96	272.45	271.91	273.51	273.51	270.50	268.35	–
MINING	741.91	746.35	733.07	751.40	748.31	765.26	756.95	759.24	758.20	757.67	760.57	763.73	757.15	753.76	769.73
CONSTRUCTION	643.69	668.07	650.41	668.89	679.78	687.08	690.40	672.03	699.60	686.12	674.15	664.12	670.48	678.22	688.16
MANUFACTURING															
Current dollars	562.53	580.05	574.08	577.55	581.44	573.50	583.11	588.39	589.68	594.18	603.93	590.30	588.89	590.13	596.31
Constant (1982) dollars	341.34	344.45	341.92	343.78	346.10	340.36	345.04	346.11	346.26	348.70	354.42	345.61	342.98	340.72	–
Durable goods	591.35	607.68	602.19	606.58	610.56	598.21	612.08	615.92	618.38	622.57	634.86	621.18	620.13	622.87	628.79
Lumber and wood products	456.21	472.15	468.44	472.79	476.32	473.47	480.80	472.40	479.83	479.83	480.32	474.56	469.45	469.45	480.52
Furniture and fixtures	442.54	452.57	447.83	443.37	449.75	451.85	459.10	457.73	458.87	458.54	471.01	459.55	457.70	462.80	465.56
Stone, clay, and glass products	591.60	603.26	594.00	607.51	611.97	613.20	616.08	621.28	616.88	620.49	606.20	592.75	593.60	597.55	613.31
Primary metal industries	684.66	700.57	688.84	699.30	706.40	698.91	705.16	717.66	709.69	721.46	733.41	723.41	723.72	724.75	734.82
Blast furnaces and basic steel products	821.98	845.38	829.11	843.67	861.06	854.66	852.65	855.35	851.30	868.85	881.36	871.12	878.82	879.59	891.71
Fabricated metal products	552.44	568.01	562.46	566.25	569.36	558.18	571.05	568.90	572.40	579.44	591.84	579.09	576.03	575.51	580.46
Industrial machinery and equipment	619.32	633.42	626.67	630.89	631.08	628.42	635.46	635.09	642.11	646.43	663.55	654.08	652.96	655.35	656.20
Electronic and other electrical equipment	541.93	556.83	547.04	551.26	556.10	551.74	562.02	562.51	567.64	572.14	580.88	571.58	567.18	570.46	576.00
Transportation equipment	760.80	792.78	790.30	789.32	802.62	757.07	796.65	816.64	814.53	814.09	843.22	814.57	820.60	824.00	832.17
Motor vehicles and equipment	776.91	831.60	834.94	831.68	848.07	780.24	831.87	866.32	857.53	852.92	891.20	856.24	859.50	865.35	881.79
Instruments and related products	570.35	588.06	583.91	583.74	586.40	584.25	591.19	587.73	594.50	600.85	612.00	595.33	595.13	594.10	596.16
Miscellaneous manufacturing	434.51	452.07	448.88	451.13	450.87	444.88	453.60	454.96	461.09	459.49	467.43	451.21	453.92	457.02	459.39
Nondurable goods	521.88	538.65	532.76	536.20	539.15	538.05	540.38	547.35	548.05	551.86	557.86	544.97	542.82	544.04	550.39
Food and kindred products	492.06	505.78	497.28	503.78	505.86	507.87	506.15	513.20	513.04	518.50	521.10	505.51	500.62	502.66	509.22
Tobacco products	710.47	764.71	767.62	821.07	833.68	854.46	841.70	753.31	753.45	775.87	794.27	670.96	683.82	732.49	754.38
Textile mill products	425.99	438.04	436.81	437.22	441.16	434.83	440.59	438.75	444.88	449.28	453.11	443.36	448.11	449.60	454.69
Apparel and other textile products	317.80	331.36	332.01	333.02	338.71	326.71	333.00	331.57	338.92	337.65	343.14	335.54	339.15	341.19	341.71
Paper and allied products	673.13	694.70	690.19	688.90	695.13	690.15	693.53	712.63	706.06	707.67	713.83	696.57	688.86	688.12	697.79
Printing and publishing	515.14	528.31	523.11	522.12	520.37	525.78	530.69	539.24	539.24	543.59	548.88	534.39	535.53	540.64	544.24
Chemicals and allied products	739.58	751.21	737.43	744.29	746.05	746.82	754.68	769.87	763.73	770.35	779.20	764.05	757.43	754.38	766.89
Petroleum and coal products	912.11	924.93	917.62	896.73	909.02	924.46	906.95	931.82	936.58	938.69	940.87	938.74	958.27	977.65	952.20
Rubber and miscellaneous plastics products	494.98	513.33	511.21	511.60	513.28	506.35	510.05	517.09	514.59	519.98	529.17	519.57	516.66	517.08	526.67
Leather and leather products	350.43	365.31	363.46	367.30	367.49	359.41	377.12	367.78	370.59	373.92	371.01	368.63	369.75	374.60	383.91
TRANSPORTATION AND PUBLIC UTILITIES	604.75	606.43	601.00	603.34	606.84	609.17	617.40	607.53	605.18	607.82	612.10	609.29	610.36	608.38	624.62
WHOLESALE TRADE	539.90	560.26	554.58	560.86	554.50	558.72	566.96	564.16	570.51	569.09	574.04	579.81	571.09	570.71	588.56
RETAIL TRADE	253.17	263.32	259.16	262.77	265.19	268.80	270.30	264.38	264.96	264.33	271.03	265.91	266.19	267.70	273.18
FINANCE, INSURANCE, AND REAL ESTATE	511.78	528.88	524.50	535.81	520.55	525.99	539.11	526.68	529.95	530.28	533.95	549.40	538.61	537.06	556.01
SERVICES	418.91	436.19	431.57	436.22	431.30	432.96	439.90	435.40	442.76	444.72	446.29	451.59	449.88	448.83	456.98

[P] = preliminary.
NOTE: See "Notes on the data" for a description of the most recent benchmark revision. Dash indicates data not available.

17. Diffusion indexes of employment change, seasonally adjusted

[In percent]

Timespan and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.
	Private nonfarm payrolls, 356 industries											
Over 1-month span:												
1997	56.2	61.0	61.9	62.8	58.8	56.3	60.7	61.0	59.4	65.4	63.6	62.1
1998	63.8	57.9	58.8	60.5	55.9	57.9	58.0	55.8	54.6	52.9	59.1	58.6
1999	54.4	58.3	52.1	58.8	51.5	57.0	57.6	50.0	55.1	57.2	57.9	57.7
2000	57.7	54.1	57.2	55.3	–	–	–	–	–	–	–	–
Over 3-month span:												
1997	63.8	63.6	67.7	67.3	62.6	61.7	61.4	66.2	67.3	69.9	70.8	71.2
1998	66.7	66.2	64.5	63.9	61.4	58.7	60.0	58.4	57.6	57.6	59.0	60.4
1999	60.7	55.9	59.6	54.6	56.3	56.2	56.2	59.0	57.4	59.6	60.8	60.5
2000	60.5	61.5	60.3	–	–	–	–	–	–	–	–	–
Over 6-month span:												
1997	67.4	68.3	65.6	67.0	65.6	64.9	66.3	68.4	69.7	71.3	71.3	71.9
1998	70.6	66.9	65.9	62.4	62.6	61.1	58.0	59.8	60.0	60.8	60.8	58.0
1999	61.1	58.8	57.3	59.0	55.2	57.4	56.9	61.5	61.0	59.7	62.9	64.2
2000	64.3	–	–	–	–	–	–	–	–	–	–	–
Over 12-month span:												
1997	69.0	67.3	68.3	69.7	69.5	70.1	70.1	70.4	70.5	69.7	69.8	71.3
1998	70.4	68.3	67.1	64.0	62.1	61.7	61.8	63.8	59.8	59.0	59.3	58.6
1999	60.1	57.3	57.0	57.6	58.7	59.0	58.8	57.9	61.9	62.5	–	–
	Manufacturing payrolls, 139 industries											
Over 1-month span:												
1997	50.0	52.9	53.6	56.1	52.2	53.2	51.1	55.4	53.6	62.2	61.2	55.4
1998	58.6	51.8	50.4	50.4	40.6	46.8	40.3	45.3	42.1	36.3	39.9	45.0
1999	40.3	42.4	39.6	44.6	36.3	45.3	57.2	38.5	42.8	48.9	50.7	49.3
2000	51.1	49.3	45.0	52.5	–	–	–	–	–	–	–	–
Over 3-month span:												
1997	51.8	51.4	57.6	56.8	54.3	51.8	53.6	55.4	59.7	68.3	65.8	64.4
1998	59.4	57.9	51.8	44.2	41.7	34.9	37.4	37.1	38.1	34.2	35.6	35.3
1999	37.4	31.7	37.1	30.2	33.8	43.9	43.2	44.6	38.5	46.4	50.0	50.4
2000	49.6	49.6	48.2	–	–	–	–	–	–	–	–	–
Over 6-month span:												
1997	54.7	54.0	51.4	54.3	52.5	52.2	55.4	61.2	61.5	64.7	66.2	65.1
1998	59.7	49.3	48.2	36.7	36.7	36.7	28.4	31.3	33.5	35.3	32.7	28.1
1999	33.1	29.1	28.1	36.0	30.9	34.5	36.3	44.6	45.7	41.4	47.8	50.7
2000	52.5	–	–	–	–	–	–	–	–	–	–	–
Over 12-month span:												
1997	54.7	52.5	54.0	54.0	55.4	56.8	57.2	57.9	58.3	56.5	55.4	57.2
1998	54.0	49.3	46.0	40.6	35.6	33.8	30.9	32.0	26.6	26.6	25.5	26.3
1999	32.7	25.9	28.4	29.5	29.9	31.7	34.9	32.7	40.3	40.6	–	–

– Data not available.

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment. Data for the 2 most recent months shown in each span are preliminary. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

18. Annual data: Employment status of the population

[Numbers in thousands]

Employment status	1991	1992	1993	1994	1995	1996	1997	1998	1999
Civilian noninstitutional population	190,925	192,805	194,838	196,814	198,584	200,591	203,133	205,220	207,753
Civilian labor force	126,346	128,105	129,200	131,056	132,304	133,943	136,297	137,673	139,368
Labor force participation rate	66.2	66.4	66.3	66.6	66.6	66.8	67.1	67.1	67.1
Employed	117,718	118,492	120,259	123,060	124,900	126,708	129,558	131,463	133,488
Employment-population ratio	61.7	61.5	61.7	62.5	62.9	63.2	63.8	64.1	64.3
Agriculture	3,269	3,247	3,115	3,409	3,440	3,443	3,399	3,378	3,281
Nonagricultural industries	114,499	115,245	117,144	119,651	121,460	123,264	126,159	128,085	130,207
Unemployed	8,628	9,613	8,940	7,996	7,404	7,236	6,739	6,210	5,880
Unemployment rate	6.8	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2
Not in the labor force	64,578	64,700	65,638	65,758	66,280	66,647	66,837	67,547	68,385

19. Annual data: Employment levels by industry

[In thousands]

Industry	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total employment	108,249	108,601	110,713	114,163	117,191	119,608	122,690	125,826	128,615
Private sector	89,847	89,956	91,872	95,036	97,885	100,189	103,133	106,007	108,455
Goods-producing	23,745	23,231	23,352	23,908	24,265	24,493	24,962	25,347	25,240
Mining	689	635	610	601	581	580	596	590	535
Construction	4,650	4,492	4,668	4,986	5,160	5,418	5,691	5,985	6,273
Manufacturing	18,406	18,104	18,075	18,321	18,524	18,495	18,675	18,772	18,432
Service-producing	84,504	85,370	87,361	90,256	92,925	95,115	97,727	100,480	103,375
Transportation and public utilities	5,755	5,718	5,811	5,984	6,132	6,253	6,408	6,600	6,792
Wholesale trade	6,081	5,997	5,981	6,162	6,378	6,482	6,648	6,831	7,004
Retail trade	19,284	19,356	19,773	20,507	21,187	21,597	21,966	22,296	22,787
Finance, insurance, and real estate	6,646	6,602	6,757	6,896	6,806	6,911	7,109	7,407	7,632
Services	28,336	29,052	30,197	31,579	33,117	34,454	36,040	37,526	39,000
Government	18,402	18,645	18,841	19,128	19,305	19,419	19,557	19,819	20,161
Federal	2,966	2,969	2,915	2,870	2,822	2,757	2,699	2,686	2,669
State	4,355	4,408	4,488	4,576	4,635	4,606	4,582	4,612	4,695
Local	11,081	11,267	11,438	11,682	11,849	12,056	12,276	12,521	12,796

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

20. Annual data: Average hours and earnings of production or nonsupervisory workers on nonfarm payrolls, by industry

Industry	1991	1992	1993	1994	1995	1996	1997	1998	1999
Private sector:									
Average weekly hours	34.3	34.4	34.5	34.7	34.5	34.4	34.6	34.6	34.5
Average hourly earnings (in dollars)	10.32	10.57	10.83	11.12	11.43	11.82	12.28	12.78	13.24
Average weekly earnings (in dollars)	353.98	363.61	373.64	385.86	394.34	406.61	424.89	442.19	456.78
Mining:									
Average weekly hours	44.4	43.9	44.3	44.8	44.7	45.3	45.4	43.9	43.8
Average hourly earnings (in dollars)	14.19	14.54	14.60	14.88	15.30	15.62	16.15	16.90	17.04
Average weekly earnings (in dollars)	630.04	638.31	646.78	666.62	683.91	707.59	733.21	741.91	746.35
Construction:									
Average weekly hours	38.1	38.0	38.5	38.9	38.9	39.0	39.0	38.8	39.0
Average hourly earnings (in dollars)	14.00	14.15	14.38	14.73	15.09	15.47	16.04	16.59	17.13
Average weekly earnings (in dollars)	533.40	537.70	553.63	573.00	587.00	603.33	625.56	643.69	668.07
Manufacturing:									
Average weekly hours	40.7	41.0	41.4	42.0	41.6	41.6	42.0	41.7	41.7
Average hourly earnings (in dollars)	11.18	11.46	11.74	12.07	12.37	12.77	13.17	13.49	13.91
Average weekly earnings (in dollars)	455.03	469.86	486.04	506.94	514.59	531.23	553.14	562.53	580.05
Transportation and public utilities:									
Average weekly hours	38.1	38.3	39.3	39.7	39.4	39.6	39.7	39.5	38.7
Average hourly earnings (in dollars)	13.20	13.43	13.55	13.78	14.13	14.45	14.92	15.31	15.67
Average weekly earnings (in dollars)	502.92	514.37	532.52	547.07	556.72	572.22	592.32	604.75	606.43
Wholesale trade:									
Average weekly hours	38.1	38.2	38.2	38.4	38.3	38.3	38.4	38.4	38.4
Average hourly earnings (in dollars)	11.15	11.39	11.74	12.06	12.43	12.87	13.45	14.06	14.59
Average weekly earnings (in dollars)	424.82	435.10	448.47	463.10	476.07	492.92	516.48	539.90	560.26
Retail trade:									
Average weekly hours	28.6	28.8	28.8	28.9	28.8	28.8	28.9	29.0	29.0
Average hourly earnings (in dollars)	6.94	7.12	7.29	7.49	7.69	7.99	8.33	8.73	9.08
Average weekly earnings (in dollars)	198.48	205.06	209.95	216.46	221.47	230.11	240.74	253.17	263.32
Finance, insurance, and real estate:									
Average weekly hours	35.7	35.8	35.8	35.8	35.9	35.9	36.1	36.4	36.2
Average hourly earnings (in dollars)	10.39	10.82	11.35	11.83	12.32	12.80	13.34	14.06	14.61
Average weekly earnings (in dollars)	370.92	387.36	406.33	423.51	442.29	459.52	481.57	511.78	528.88
Services:									
Average weekly hours	32.4	32.5	32.5	32.5	32.4	32.4	32.6	32.6	32.6
Average hourly earnings (in dollars)	10.23	10.54	10.78	11.04	11.39	11.79	12.28	12.85	13.38
Average weekly earnings (in dollars)	331.45	342.55	350.35	358.80	369.04	382.00	400.33	418.91	436.19

21. Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	1998				1999				2000	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended Mar. 2000	12 months ended Mar. 2000
Civilian workers[2]	136.3	137.4	139.0	139.8	140.4	141.8	143.3	144.6	146.5	1.3	4.3
Workers, by occupational group:											
White-collar workers	137.7	138.7	140.6	141.4	141.9	143.3	145.0	146.3	148.4	1.4	4.6
Professional specialty and technical	137.5	138.3	140.0	141.0	141.3	142.2	143.9	145.3	146.7	1.0	3.8
Executive, administrative, and managerial	139.1	139.7	141.7	141.8	143.5	145.4	147.3	148.6	150.5	1.3	4.9
Administrative support, including clerical	138.0	139.3	140.4	141.3	142.5	143.4	144.7	146.1	148.6	1.7	4.3
Blue-collar workers	133.2	134.3	135.3	136.1	137.1	138.3	139.5	140.6	142.7	1.5	4.1
Service occupations	136.9	137.9	139.4	140.0	141.3	142.4	143.1	144.8	146.0	.8	3.3
Workers, by industry division:											
Goods-producing	135.1	136.3	137.2	137.9	139.0	140.0	141.2	142.5	144.9	1.7	4.2
Manufacturing	136.4	137.2	138.2	138.9	139.9	140.9	142.1	143.6	146.0	1.7	4.4
Service-producing	136.8	137.7	139.6	140.4	140.9	142.4	144.0	145.3	147.1	1.2	4.4
Services	138.3	139.0	140.8	141.7	142.3	143.2	145.1	146.5	148.0	1.0	4.0
Health services	138.0	138.5	139.1	139.1	140.5	141.4	142.7	144.3	145.9	1.1	3.8
Hospitals	137.1	138.2	139.4	140.2	141.3	142.2	143.4	145.0	146.3	.9	3.5
Educational services	137.5	137.7	140.2	141.0	141.3	141.7	144.6	145.8	146.5	.5	3.7
Public administration[3]	136.4	137.4	138.9	139.9	140.8	141.5	142.4	144.4	145.7	.9	3.5
Nonmanufacturing	136.2	137.3	139.0	139.9	140.5	141.9	143.4	144.7	146.6	1.3	4.3
Private industry workers	136.3	137.5	139.0	139.8	140.4	142.0	143.3	144.6	146.8	1.5	4.6
Excluding sales occupations	136.4	137.5	138.8	139.4	140.5	141.9	143.2	144.5	146.5	1.4	4.3
Workers, by occupational group:											
White-collar workers	138.1	139.4	141.1	142.0	142.4	144.1	145.6	146.9	149.3	1.6	4.8
Excluding sales occupations	138.8	139.9	141.3	141.9	143.0	144.5	146.0	147.3	149.4	1.4	4.5
Professional specialty and technical occupations	138.8	140.1	141.6	142.6	142.9	144.1	145.2	146.7	148.4	1.2	3.8
Executive, administrative, and managerial occupations	139.4	140.0	141.9	141.8	143.7	145.8	147.7	149.1	151.1	1.3	5.1
Sales occupations	135.3	137.3	140.4	142.6	139.6	142.6	144.1	145.3	148.9	2.5	6.7
Administrative support occupations, including clerical	138.2	139.6	140.6	141.4	142.6	143.7	145.0	146.2	149.0	1.9	4.5
Blue-collar workers	133.1	134.3	135.2	135.9	136.9	138.2	139.4	140.5	142.6	1.5	4.2
Precision production, craft, and repair occupations	132.9	134.4	135.4	136.1	137.2	138.4	139.6	140.6	142.3	1.2	3.7
Machine operators, assemblers, and inspectors	133.6	134.7	135.7	136.8	137.3	138.4	139.9	141.4	144.0	1.8	4.9
Transportation and material moving occupations	129.3	129.9	130.7	130.7	131.6	133.6	134.4	135.2	137.5	1.7	4.5
Handlers, equipment cleaners, helpers, and laborers	137.0	137.6	138.5	139.2	141.0	142.3	143.2	144.4	146.4	1.4	3.8
Service occupations	135.3	136.0	137.3	138.0	139.5	140.6	141.0	142.6	143.9	.9	3.2
Production and nonsupervisory occupations[4]	135.3	136.6	138.0	139.0	139.3	140.8	141.9	143.1	145.3	1.5	4.3
Workers, by industry division:											
Goods-producing	135.1	136.2	137.1	137.8	138.9	139.9	141.1	142.5	144.8	1.6	4.2
Excluding sales occupations	134.5	135.6	136.5	137.2	138.3	139.3	140.5	141.8	144.2	1.7	4.3
White-collar occupations	137.7	138.8	139.7	140.2	141.7	142.7	143.9	145.5	148.1	1.8	4.5
Excluding sales occupations	136.3	137.4	138.3	138.8	140.4	141.3	142.5	143.9	146.5	1.8	4.4
Blue-collar occupations	133.5	134.6	135.5	136.3	137.1	138.3	139.4	140.7	142.8	1.5	4.2
Construction	130.6	132.7	133.4	134.3	135.6	136.9	137.9	138.7	140.8	1.5	3.8
Manufacturing	136.4	137.2	138.2	138.9	139.9	140.9	142.1	143.6	146.0	1.7	4.4
White-collar occupations	138.2	139.1	140.1	140.5	141.8	143.0	144.3	145.8	148.2	1.6	4.5
Excluding sales occupations	136.5	137.3	138.3	138.7	140.1	141.3	142.5	143.8	146.2	1.7	4.4
Blue-collar occupations	135.0	135.9	136.8	137.7	138.5	139.4	140.5	142.1	144.4	1.6	4.3
Durables	136.5	137.4	138.5	139.2	139.9	141.0	142.3	144.0	146.5	1.7	4.7
Nondurables	135.9	136.7	137.6	138.2	139.6	140.4	141.5	142.8	144.9	1.5	3.8
Service-producing	136.7	137.8	139.6	140.5	140.9	142.8	144.1	145.3	147.4	1.4	4.6
Excluding sales occupations	137.4	138.5	140.0	140.6	141.7	143.3	144.6	145.9	147.7	1.2	4.2
White-collar occupations	138.0	139.3	141.2	142.2	142.3	144.3	145.8	147.0	149.3	1.6	4.9
Excluding sales occupations	139.5	140.6	142.2	142.8	143.8	145.5	147.0	148.3	150.3	1.3	4.5
Blue-collar occupations	132.1	133.2	134.3	134.8	136.2	137.8	139.1	139.8	141.8	1.4	4.1
Service occupations	135.0	135.8	137.0	137.8	139.3	140.5	140.8	142.4	143.6	.8	3.1
Transportation and public utilities	135.8	137.1	138.5	139.3	139.7	140.9	141.8	142.3	143.9	1.1	3.0
Transportation	134.0	134.9	136.7	137.3	136.8	138.1	138.7	139.5	140.4	.6	2.6
Public utilities	137.9	139.7	140.7	141.9	143.4	144.6	145.7	146.1	148.6	1.7	3.6
Communications	136.6	139.2	140.5	141.7	143.3	144.9	146.1	146.0	148.4	1.6	3.6
Electric, gas, and sanitary services	139.6	140.3	141.0	142.1	143.4	144.2	145.1	146.1	148.9	1.9	3.8
Wholesale and retail trade	134.7	135.8	137.6	138.2	138.9	141.1	142.2	143.5	145.6	1.5	4.8
Excluding sales occupations	135.5	136.3	138.1	138.8	139.9	141.9	142.8	144.3	146.4	1.5	4.6
Wholesale trade	137.7	138.6	140.8	142.8	142.7	144.6	146.3	148.5	150.0	1.0	5.1
Excluding sales occupations	137.0	138.2	140.0	141.2	142.4	144.0	145.8	147.4	149.6	1.5	5.1
Retail trade	133.1	134.4	135.9	135.6	136.8	139.1	140.0	140.7	143.2	1.8	4.7
General merchandise stores	131.2	133.0	133.2	134.0	135.0	135.6	137.2	138.3	139.7	1.0	3.5
Food stores	131.3	132.9	133.7	132.7	134.3	135.7	137.0	138.1	140.1	1.4	4.3

See footnotes at end of table.

21. Continued—Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	1998				1999				2000	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2000	
Finance, insurance, and real estate	136.7	138.4	141.0	142.5	141.5	145.8	147.6	148.3	152.0	2.5	7.4
Excluding sales occupations	140.2	141.3	143.2	143.3	145.6	148.8	151.0	151.6	154.2	1.7	5.9
Banking, savings and loan, and other credit agencies	143.3	145.3	148.4	146.7	148.8	155.4	159.3	159.8	162.7	1.8	9.3
Insurance	137.4	138.9	141.9	141.7	141.7	144.0	144.5	145.8	149.9	2.8	5.8
Services	139.3	140.3	141.8	142.7	143.5	144.6	146.1	147.6	149.4	1.2	4.1
Business services	139.5	140.7	143.5	145.9	147.5	148.7	150.7	151.9	154.2	1.5	4.5
Health services	138.2	138.7	139.0	139.0	140.5	141.4	142.6	144.2	145.8	1.1	3.8
Hospitals	136.7	138.2	139.1	139.9	141.2	142.1	143.0	144.6	145.8	.8	3.3
Educational services	143.4	143.9	147.0	147.7	148.3	148.7	152.2	153.0	154.0	.7	3.8
Colleges and universities	144.3	144.8	147.8	148.5	149.2	149.6	152.6	153.3	154.6	.8	3.6
Nonmanufacturing	136.0	137.2	138.9	139.7	140.3	142.0	143.4	144.5	146.7	1.5	4.6
White-collar workers	137.9	139.2	141.1	142.0	142.3	144.1	145.6	146.9	149.2	1.6	4.8
Excluding sales occupations	139.3	140.5	142.0	142.7	143.7	145.3	146.8	148.1	150.2	1.4	4.5
Blue-collar occupations	131.0	132.4	133.4	134.0	135.2	136.8	138.0	138.7	140.6	1.4	4.0
Service occupations	134.9	135.7	136.9	137.7	139.2	140.4	140.7	142.3	143.5	.8	3.1
State and local government workers	136.5	136.9	139.0	139.8	140.5	141.0	143.1	144.6	145.5	.6	3.6
Workers, by occupational group:											
White-collar workers	136.1	136.2	138.4	139.3	139.8	140.2	142.6	144.0	144.9	.6	3.6
Professional specialty and technical	135.6	135.6	137.7	138.5	138.8	139.3	142.0	143.2	144.1	.6	3.8
Executive, administrative, and managerial	137.5	137.9	140.4	141.6	142.6	142.8	144.5	146.1	147.0	.6	3.1
Administrative support, including clerical	136.9	137.2	139.5	140.3	141.4	141.3	143.0	145.0	145.9	.6	3.2
Blue-collar workers	135.0	135.2	136.8	137.8	138.8	139.5	140.9	142.5	143.7	.8	3.5
Workers, by industry division:											
Services	136.5	136.6	139.0	139.7	140.0	140.5	143.2	144.5	145.2	.5	3.7
Services excluding schools[5]	136.1	136.2	138.7	138.8	139.6	140.3	142.6	143.8	145.2	1.0	4.0
Health services	137.9	138.0	140.3	140.7	141.2	142.0	144.2	145.8	147.3	1.0	4.3
Hospitals	138.4	138.4	140.7	141.2	141.7	142.7	144.8	146.3	147.9	1.1	4.4
Educational services	136.3	136.5	138.8	139.6	139.9	140.3	143.1	144.4	145.0	.4	3.6
Schools	136.6	136.7	139.1	139.9	140.2	140.6	143.5	144.7	145.3	.4	3.6
Elementary and secondary	136.1	136.2	138.8	139.3	139.6	140.0	142.9	144.1	144.5	.3	3.5
Colleges and universities	137.9	138.1	140.4	141.5	141.7	142.1	144.8	146.5	147.4	.6	4.0
Public administration[3]	136.4	137.4	138.9	139.9	140.8	141.5	142.4	144.4	145.7	.9	3.5

[1] Cost (cents per hour worked) measured in the Employment Cost Index consists of wages, salaries, and employer cost of employee benefits.

[2] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[3] Consists of legislative, judicial, administrative, and regulatory activities.

[4] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[5] Includes, for example, library, social, and health services.

22. Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	1998				1999				2000	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended Mar. 2000	12 months ended Mar. 2000
Civilian workers[1]	134.0	135.0	136.8	137.7	138.4	139.8	141.3	142.5	144.0	1.1	4.0
Workers, by occupational group:											
White-collar workers	135.6	136.7	138.8	139.7	140.1	141.6	143.3	144.6	146.2	1.1	4.4
Professional specialty and technical	135.8	136.6	138.5	139.4	140.1	141.0	142.6	144.0	144.9	.6	3.4
Executive, adminitrative, and managerial	137.4	138.3	140.5	140.3	141.6	143.8	145.9	147.2	148.6	1.0	4.9
Administrative support, including clerical	135.0	136.2	137.5	138.6	140.0	140.9	142.3	143.5	145.5	1.4	3.9
Blue-collar workers	130.4	131.4	132.6	133.3	134.5	135.8	137.0	137.9	139.2	.9	3.5
Service occupations	133.7	134.5	136.1	137.0	138.3	139.4	140.1	141.7	143.0	.9	3.4
Workers, by industry division:											
Goods-producing	132.0	133.3	134.4	135.2	136.3	137.4	138.6	139.7	141.3	1.1	3.7
Manufacturing	133.7	134.6	136.0	136.8	137.9	139.0	140.2	141.5	142.9	1.0	3.6
Service-producing	134.8	135.7	137.8	138.7	139.2	140.7	142.3	143.5	145.0	1.0	4.2
Services	136.9	137.6	139.6	140.5	141.5	142.3	144.1	145.5	146.6	.8	3.6
Health services	136.2	136.5	137.6	137.6	138.8	139.7	140.9	142.5	143.8	.9	3.6
Hospitals	134.2	135.1	136.4	137.1	138.1	138.8	140.1	141.6	142.6	.7	3.3
Educational services	136.3	136.5	139.1	140.0	140.2	140.6	143.7	144.7	145.3	.4	3.6
Public administration[4]	132.7	133.2	134.8	135.9	136.9	137.8	139.5	141.5	142.5	.7	4.1
Nonmanufacturing	134.0	135.1	137.0	137.8	138.4	139.9	141.5	142.6	144.2	1.1	4.2
Private industry workers	133.7	134.9	136.6	137.4	138.1	139.7	141.0	142.2	143.9	1.2	4.2
Excluding sales occupations	133.7	134.8	136.3	136.9	138.2	139.6	140.8	142.0	143.5	1.1	3.8
Workers, by occupational group:											
White-collar workers	135.7	137.0	139.0	139.9	140.3	142.1	143.5	144.8	146.6	1.2	4.5
Excluding sales occupations	136.3	137.5	139.1	139.7	141.0	142.5	143.9	145.2	146.7	1.0	4.0
Professional specialty and technical occupations	135.9	137.1	138.7	139.7	140.7	141.8	142.6	144.1	145.1	.7	3.1
Executive, adminitrative, and managerial occupations	137.8	138.7	140.9	140.5	141.9	144.3	146.4	147.6	149.2	1.1	5.1
Sales occupations	133.1	135.2	138.8	141.3	137.3	140.5	142.1	143.3	146.7	2.4	6.8
Administrative support occupations, including clerical	135.3	136.7	137.9	138.9	140.4	141.4	142.7	143.8	146.0	1.5	4.0
Blue-collar workers	130.2	131.3	132.4	133.2	134.3	135.6	136.8	137.7	139.1	1.0	3.6
Precision production, craft, and repair occupations	129.8	131.2	132.3	133.0	134.3	135.6	136.7	137.5	138.9	1.0	3.4
Machine operators, assemblers, and inspectors	131.6	132.7	133.8	134.9	135.7	136.7	138.3	139.5	140.7	.9	3.7
Transportation and material moving occupations	125.9	126.4	127.6	127.8	129.1	131.0	131.9	132.7	134.1	1.1	3.9
Handlers, equipment cleaners, helpers, and laborers	133.2	133.7	135.1	135.8	137.3	138.3	139.4	140.4	141.8	1.0	3.3
Service occupations	132.1	133.0	134.4	135.3	136.7	137.8	138.0	139.6	141.0	1.0	3.1
Production and nonsupervisory occupations[3]	132.3	133.6	135.2	136.4	136.8	138.2	139.3	140.4	142.1	1.2	3.9
Workers, by industry division:											
Goods-producing	132.0	133.2	134.3	135.2	136.3	137.3	138.5	139.7	141.3	1.1	3.7
Excluding sales occupations	131.3	132.5	133.6	134.4	135.5	136.6	137.8	138.9	140.5	1.2	3.7
White-collar occupations	135.0	136.3	137.4	138.2	139.4	140.5	141.7	143.0	145.0	1.4	4.0
Excluding sales occupations	133.3	134.6	135.7	136.4	137.8	138.8	140.1	141.3	143.2	1.3	3.9
Blue-collar occupations	130.1	131.3	132.3	133.3	134.3	135.4	136.6	137.6	139.0	1.0	3.5
Construction	126.0	128.1	128.5	129.3	130.7	131.9	133.0	133.6	136.0	1.8	4.1
Manufacturing	133.7	134.6	136.0	136.8	137.9	139.0	140.2	141.5	142.9	1.0	3.6
White-collar occupations	135.6	136.8	138.3	139.0	140.1	141.4	142.7	144.0	145.8	1.3	4.1
Excluding sales occupations	133.8	135.0	136.3	137.1	138.3	139.6	140.8	142.0	143.7	1.2	3.9
Blue-collar occupations	132.3	133.1	134.3	135.3	136.3	137.2	138.4	139.7	140.8	.8	3.3
Durables	133.4	134.5	135.9	136.9	137.9	139.1	140.4	141.8	143.0	.8	3.7
Nondurables	134.2	134.9	136.0	136.8	138.0	138.7	139.7	140.9	142.7	1.3	3.4
Service-producing	134.4	135.6	137.6	138.4	138.9	140.8	142.1	143.3	145.0	1.2	4.4
Excluding sales occupations	135.2	136.2	137.9	138.5	139.8	141.4	142.6	143.8	145.3	1.0	3.9
White-collar occupations	135.7	137.0	139.2	140.1	140.3	142.3	143.8	145.0	146.9	1.3	4.7
Excluding sales occupations	137.3	138.4	140.2	140.7	142.0	143.7	145.1	146.4	147.8	1.0	4.1
Blue-collar occupations	130.2	131.1	132.4	132.9	134.4	135.9	137.0	137.8	139.1	.9	3.5
Service occupations	132.1	133.0	134.2	135.2	136.7	137.8	138.0	139.6	141.1	1.1	3.2
Transportation and public utilities	132.1	132.8	134.3	135.1	135.4	136.8	137.5	137.9	138.5	.4	2.3
Transportation	130.1	130.4	132.4	132.9	132.3	133.7	134.4	134.9	134.9	.0	2.0
Public utilities	134.5	135.7	136.5	137.8	139.2	140.6	141.5	141.8	143.2	1.0	2.9
Communications	134.4	135.8	136.7	138.0	139.4	141.1	141.9	142.2	143.4	.8	2.9
Electric, gas, and sanitary services	134.7	135.6	136.3	137.4	138.9	140.0	140.9	141.3	143.0	1.2	3.0
Wholesale and retail trade	133.3	134.6	136.6	137.0	137.7	139.6	140.7	142.0	143.8	1.3	4.4
Excluding sales occupations	134.7	135.6	137.6	138.2	139.5	141.1	141.8	143.3	145.2	1.3	4.1
Wholesale trade	136.2	137.1	139.3	141.3	140.7	142.3	144.3	146.5	147.4	.6	4.8
Excluding sales occupations	136.5	137.8	139.6	140.8	141.9	143.0	144.8	146.4	147.9	1.0	4.2
Retail trade	131.9	133.3	135.2	134.8	136.2	138.3	138.9	139.6	142.1	1.8	4.3
General merchandise stores	129.4	131.5	132.2	133.0	133.7	134.3	135.6	136.7	137.8	.8	3.1
Food stores	129.0	130.5	131.7	130.5	131.8	132.8	133.9	134.9	136.7	1.3	3.7

See footnotes at end of table.

22. Continued—Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	1998				1999				2000	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2000	
Finance, insurance, and real estate	132.6	134.8	138.1	139.8	137.2	142.4	144.5	145.2	148.7	2.4	8.4
Excluding sales occupations	135.9	137.5	139.7	139.6	141.0	144.8	147.5	148.0	150.2	1.5	6.5
Banking, savings and loan, and other credit agencies	140.9	143.2	147.0	144.4	146.1	154.5	159.2	159.6	162.0	1.5	10.9
Insurance	133.1	134.8	138.7	138.5	137.4	139.8	140.2	141.5	145.5	2.8	5.9
Services	137.2	138.3	140.0	140.8	142.2	143.2	144.5	146.0	147.4	1.0	3.7
Business services	137.6	139.2	141.8	144.1	145.4	146.3	148.5	149.8	152.0	1.5	4.5
Health services	136.2	136.5	137.5	137.4	138.7	139.6	140.6	142.2	143.5	.9	3.5
Hospitals	133.6	134.7	135.8	136.5	137.6	138.3	139.3	140.9	141.8	.6	3.1
Educational services	139.1	139.6	142.8	143.5	143.9	144.2	147.5	148.2	148.9	.5	3.5
Colleges and universities	139.1	139.7	142.8	143.6	144.1	144.4	147.2	147.9	148.9	.7	3.3
Nonmanufacturing	133.4	134.7	136.5	137.4	137.9	139.7	141.0	142.1	143.9	1.3	4.4
White-collar workers	135.5	136.8	138.9	139.8	140.1	142.0	143.5	144.7	146.5	1.2	4.6
Excluding sales occupations	136.9	138.1	139.8	140.3	141.6	143.2	144.6	145.9	147.4	1.0	4.1
Blue-collar occupations	128.2	129.5	130.5	131.1	132.4	134.0	135.1	135.8	137.4	1.2	3.8
Service occupations	132.0	132.9	134.1	135.1	136.5	137.7	137.9	139.5	140.9	1.0	3.2
State and local government workers	135.1	135.4	137.6	138.5	139.0	139.6	142.2	143.5	144.3	.6	3.8
Workers, by occupational group:											
White-collar workers	135.0	135.2	137.6	138.5	138.9	139.3	142.1	143.4	144.1	.5	3.7
Professional specialty and technical	135.5	135.6	137.9	138.7	138.9	139.4	142.5	143.6	144.3	.5	3.9
Executive, administrative, and managerial	135.1	135.6	138.0	139.3	140.1	140.5	142.7	144.3	144.9	.4	3.4
Administrative support, including clerical	133.0	133.3	135.4	136.5	137.4	137.5	139.6	141.7	142.4	.5	3.6
Blue-collar workers	133.1	133.5	135.1	136.0	136.9	137.6	139.4	140.7	141.5	.6	3.4
Workers, by industry division:											
Services	135.7	135.9	138.4	139.2	139.5	139.9	142.9	144.0	144.6	.4	3.7
Services excluding schools[4]	135.4	135.5	137.8	138.2	139.0	139.6	142.1	143.2	144.3	.8	3.8
Health services	136.3	136.5	138.7	139.2	139.7	140.4	142.8	144.2	145.3	.8	4.0
Hospitals	136.3	136.5	138.6	139.1	139.7	140.6	142.8	144.1	145.3	.8	4.0
Educational services	135.7	135.8	138.4	139.3	139.5	139.8	142.9	144.0	144.5	.3	3.6
Schools	135.8	136.0	138.5	139.5	139.6	140.0	143.1	144.2	144.7	.3	3.7
Elementary and secondary	136.0	136.1	138.7	139.3	139.5	139.9	143.1	144.1	144.5	.3	3.6
Colleges and universities	135.2	135.5	137.7	139.6	139.6	139.8	142.6	144.4	144.9	.3	3.8
Public administration[2]	132.7	133.2	134.8	135.9	136.9	137.8	139.5	141.5	142.5	.7	4.1

[1] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[2] Consists of legislative, judicial, administrative, and regulatory activities.

[3] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[4] Includes, for example, library, social, and health services.

23. Employment Cost Index, benefits, private industry workers by occupation and industry group

[June 1989 = 100]

Series	1998				1999				2000	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2000	
Private industry workers	142.6	143.7	144.5	145.2	145.8	147.3	148.6	150.2	153.8	2.4	5.5
Workers, by occupational group:											
White-collar workers	144.7	145.6	146.6	147.4	147.9	149.4	151.0	152.5	156.3	2.5	5.7
Blue-collar workers	139.1	140.4	141.0	141.6	142.2	143.6	144.8	146.2	150.0	2.6	5.5
Workers, by industry division:											
Goods-producing	141.5	142.5	143.0	143.2	144.3	145.2	146.3	148.2	152.3	2.8	5.6
Service-producing	142.7	143.8	144.9	145.7	146.1	147.9	149.4	150.7	154.0	2.2	5.4
Manufacturing	141.7	142.4	142.6	142.7	143.6	144.5	145.7	147.8	152.3	3.0	6.1
Nonmanufacturing	142.7	143.9	145.0	145.8	146.3	148.0	149.4	150.7	154.0	2.2	5.3

24. Employment Cost Index, private nonfarm workers by bargaining status, region, and area size

[June 1989 = 100]

Series	1998				1999				2000	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended Mar. 2000	12 months ended Mar. 2000
COMPENSATION											
Workers, by bargaining status[1]											
Union	134.0	135.3	136.8	137.5	138.0	139.0	140.2	141.2	143.0	1.3	3.6
Goods-producing	132.7	134.3	135.6	136.5	136.8	138.2	139.2	140.8	143.3	1.8	4.8
Service-producing	135.3	136.2	138.0	138.5	139.2	139.7	141.0	141.4	142.5	.8	2.4
Manufacturing	133.6	134.6	136.0	136.9	137.0	138.1	139.1	141.0	144.5	2.5	5.5
Nonmanufacturing	133.9	135.3	136.9	137.4	138.1	139.2	140.3	140.8	141.7	.6	2.6
Nonunion	136.7	137.8	139.3	140.1	140.8	142.5	143.8	145.2	147.4	1.5	4.7
Goods-producing	135.9	136.9	137.7	138.3	139.7	140.5	141.8	143.1	145.4	1.6	4.1
Service-producing	136.7	138.0	139.7	140.6	141.1	143.0	144.4	145.7	148.0	1.6	4.9
Manufacturing	137.2	138.0	138.9	139.4	140.7	141.7	143.0	144.4	146.5	1.5	4.1
Nonmanufacturing	136.3	137.5	139.1	140.0	140.6	142.4	143.8	145.1	147.4	1.6	4.8
Workers, by region[1]											
Northeast	136.0	137.0	138.7	139.5	140.5	141.5	143.2	144.3	146.3	1.4	4.1
South	135.5	136.4	137.6	138.1	139.1	140.7	141.8	143.0	145.0	1.4	4.2
Midwest (formerly North Central)	138.3	139.6	140.9	141.4	141.7	143.6	145.0	146.3	148.9	1.8	5.1
West	135.2	136.6	138.5	140.0	140.3	142.1	143.3	144.7	147.0	1.6	4.8
Workers, by area size[1]											
Metropolitan areas	136.4	137.5	139.1	139.8	140.4	142.0	143.3	144.7	146.9	1.5	4.6
Other areas	135.9	137.1	138.2	139.4	140.5	141.8	143.1	143.6	146.0	1.7	3.9
WAGES AND SALARIES											
Workers, by bargaining status[1]											
Union	129.6	130.7	132.4	133.1	133.6	134.7	135.7	136.5	137.2	.5	2.7
Goods-producing	127.9	129.4	131.0	131.7	132.3	133.8	134.9	136.1	137.2	.8	3.7
Service-producing	131.8	132.2	134.1	134.8	135.4	135.8	136.8	137.2	137.6	.3	1.6
Manufacturing	129.6	130.4	132.2	133.0	133.6	134.7	135.8	137.5	138.8	.9	3.9
Nonmanufacturing	129.6	130.8	132.4	133.1	133.7	134.6	135.6	135.9	136.4	.4	2.0
Nonunion	134.5	135.7	137.4	138.3	139.0	140.7	142.0	143.3	145.1	1.3	4.4
Goods-producing	133.6	134.7	135.7	136.5	137.8	138.8	140.0	141.1	142.9	1.3	3.7
Service-producing	134.6	135.9	137.9	138.8	139.3	141.3	142.6	143.9	145.8	1.3	4.7
Manufacturing	135.1	136.2	137.3	138.2	139.4	140.5	141.7	142.9	144.4	1.0	3.6
Nonmanufacturing	134.0	135.3	137.1	138.0	138.6	140.5	141.8	143.0	145.0	1.4	4.6
Workers, by region[1]											
Northeast	132.6	133.8	135.4	136.4	137.1	138.2	139.9	140.9	142.3	1.0	3.8
South	134.0	134.9	136.5	136.7	137.9	139.4	140.2	141.5	143.0	1.1	3.7
Midwest (formerly North Central)	134.7	136.0	137.5	138.0	138.9	141.0	142.4	143.6	145.3	1.2	4.6
West	132.9	134.5	136.7	138.4	138.2	140.2	141.3	142.6	144.7	1.5	4.7
Workers, by area size[1]											
Metropolitan areas	133.8	135.1	136.9	137.7	138.3	139.9	141.2	142.5	144.1	1.1	4.2
Other areas	132.5	133.4	134.7	136.0	137.1	138.4	139.8	140.2	142.2	1.4	3.7

[1] The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see the *Monthly Labor Review* Technical Note, "Estimation procedures for the Employment Cost Index," May 1982.

25. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, medium and large private establishments, selected years, 1980–97

Item	1980	1982	1984	1986	1988	1989	1991	1993	1995	1997
Scope of survey (in 000's)	21,352	21,043	21,013	21,303	31,059	32,428	31,163	28,728	33,374	38,409
Number of employees (in 000's):										
With medical care	20,711	20,412	20,383	20,238	27,953	29,834	25,865	23,519	25,546	29,340
With life insurance	20,498	20,201	20,172	20,451	28,574	30,482	29,293	26,175	29,078	33,495
With defined benefit plan	17,936	17,676	17,231	16,190	19,567	20,430	18,386	16,015	17,417	19,202
Time-off plans										
Participants with:										
Paid lunch time	10	9	9	10	11	10	8	9	–	–
Average minutes per day	–	25	26	27	29	26	30	29	–	–
Paid rest time	75	76	73	72	72	71	67	68	–	–
Average minutes per day	–	25	26	26	26	26	28	26	–	–
Paid funeral leave	–	–	–	88	85	84	80	83	80	81
Average days per occurrence	–	–	–	3.2	3.2	3.3	3.3	3.0	3.3	3.7
Paid holidays	99	99	99	99	96	97	92	91	89	89
Average days per year	10.1	10.0	9.8	10.0	9.4	9.2	10.2	9.4	9.1	9.3
Paid personal leave	20	24	23	25	24	22	21	21	22	20
Average days per year	–	3.8	3.6	3.7	3.3	3.1	3.3	3.1	3.3	3.5
Paid vacations	100	99	99	100	98	97	96	97	96	95
Paid sick leave [1]	62	67	67	70	69	68	67	65	58	56
Unpaid maternity leave	–	–	–	–	33	37	37	60	–	–
Unpaid paternity leave	–	–	–	–	16	18	26	53	–	–
Unpaid family leave	–	–	–	–	–	–	–	–	84	93
Insurance plans										
Participants in medical care plans	97	97	97	95	90	92	83	82	77	76
Percent of participants with coverage for:										
Home health care	–	–	46	66	76	75	81	86	78	85
Extended care facilities	58	62	62	70	79	80	80	82	73	78
Physical exam	–	–	8	18	28	28	30	42	56	63
Percent of participants with employee contribution required for:										
Self coverage	26	27	36	43	44	47	51	61	67	69
Average monthly contribution	–	–	$11.93	$12.80	$19.29	$25.31	$26.60	$31.55	$33.92	$39.14
Family coverage	46	51	58	63	64	66	69	76	78	80
Average monthly contribution	–	–	$35.93	$41.40	$60.07	$72.10	$96.97	$107.42	$118.33	$130.07
Participants in life insurance plans	96	96	96	96	92	94	94	91	87	87
Percent of participants with:										
Accidental death and dismemberment insurance	69	72	74	72	78	71	71	76	77	74
Survivor income benefits	–	–	–	10	8	7	6	5	7	6
Retiree protection available	–	64	64	59	49	42	44	41	37	33
Participants in long-term disability insurance plans	40	43	47	48	42	45	40	41	42	43
Participants in sickness and accident insurance plans	54	51	51	49	46	43	45	44	–	–
Participants in short-term disability plans [1]	–	–	–	–	–	–	–	–	53	55
Retirement plans										
Participants in defined benefit pension plans	84	84	82	76	63	63	59	56	52	50
Percent of participants with:										
Normal retirement prior to age 65	55	58	63	64	59	62	55	52	52	52
Early retirement available	98	97	97	98	98	97	98	95	96	95
Ad hoc pension increase in last 5 years	–	–	47	35	26	22	7	6	4	10
Terminal earnings formula	53	52	54	57	55	64	56	61	58	56
Benefit coordinated with Social Security	45	45	56	62	62	63	54	48	51	49
Participants in defined contribution plans	–	–	–	60	45	48	48	49	55	57
Participants in plans with tax-deferred savings arrangements	–	–	–	33	36	41	44	43	54	55
Other benefits										
Employees eligible for:										
Flexible benefits plans	–	–	–	2	5	9	10	12	12	13
Reimbursement accounts [2]	–	–	–	5	12	23	36	52	38	32
Premium conversion plans	–	–	–	–	–	–	–	–	5	7

[1] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1995 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-terms disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

[2] Prior to 1995, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

26. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, small private establishments and State and local governments, 1987, 1990, 1992, 1994, and 1996

Item	Small private establishments				State and local governments			
	1990	1992	1994	1996	1987	1990	1992	1994
Scope of survey (in 000's)	32,466	34,360	35,910	39,816	10,321	12,972	12,466	12,907
Number of employees (in 000's):								
With medical care	22,402	24,396	23,536	25,599	9,599	12,064	11,219	11,192
With life insurance	20,778	21,990	21,955	24,635	8,773	11,415	11,095	11,194
With defined benefit plan	6,493	7,559	5,480	5,883	9,599	11,675	10,845	11,708
Time-off plans								
Participants with:								
Paid lunch time	8	9	–	–	17	11	10	–
Average minutes per day	37	37	–	–	34	36	34	–
Paid rest time	48	49	–	–	58	56	53	–
Average minutes per day	27	26	–	–	29	29	29	–
Paid funeral leave	47	50	50	51	56	63	65	62
Average days per occurrence	2.9	3.0	3.1	3.0	3.7	3.7	3.7	3.7
Paid holidays	84	82	82	80	81	74	75	73
Average days per year[1]	9.5	9.2	7.5	7.6	10.9	13.6	14.2	11.5
Paid personal leave	11	12	13	14	38	39	38	38
Average days per year	2.8	2.6	2.6	3.0	2.7	2.9	2.9	3.0
Paid vacations	88	88	88	86	72	67	67	66
Paid sick leave [2]	47	53	50	50	97	95	95	94
Unpaid leave	17	18	–	–	57	51	59	–
Unpaid paternity leave	8	7	–	–	30	33	44	–
Unpaid family leave	–	–	47	48	–	–	–	93
Insurance plans								
Participants in medical care plans	69	71	66	64	93	93	90	87
Percent of participants with coverage for:								
Home health care	79	80	–	–	76	82	87	84
Extended care facilities	83	84	–	–	78	79	84	81
Physical exam	26	28	–	–	36	36	47	55
Percent of participants with employee contribution required for:								
Self coverage	42	47	52	52	35	38	43	47
Average monthly contribution	$25.13	$36.51	$40.97	$42.63	$15.74	$25.53	$28.97	$30.20
Family coverage	67	73	76	75	71	65	72	71
Average monthly contribution	$109.34	$150.54	$159.63	$181.53	$71.89	$117.59	$139.23	$149.70
Participants in life insurance plans	64	64	61	62	85	88	89	87
Percent of participants with:								
Accidental death and dismemberment insurance	78	76	79	77	67	67	74	64
Survivor income benefits	1	1	2	1	1	1	1	2
Retiree protection available	19	25	20	13	55	45	46	46
Participants in long-term disability insurance plans	19	23	20	22	31	27	28	30
Participants in sickness and accident insurance plans	6	26	26	–	14	21	22	21
Participants in short-term disability plans [2]	–	–	–	29	–	–	–	–
Retirement plans								
Participants in defined benefit pension plans	20	22	15	15	93	90	87	91
Percent of participants with:								
Normal retirement prior to age 65	54	50	–	47	92	89	92	92
Early retirement available	95	95	–	92	90	88	89	87
Ad hoc pension increase in last 5 years	7	4	–	–	33	16	10	13
Terminal earnings formula	58	54	–	53	100	100	100	99
Benefit coordinated with Social Security	49	46	–	44	18	8	10	49
Participants in defined contribution plans	31	33	34	38	9	9	9	9
Participants in plans with tax-deferred savings arrangements	17	24	23	28	28	45	45	24
Other benefits								
Employees eligible for:								
Flexible benefits plans	1	2	3	4	5	5	5	5
Reimbursement accounts [3]	8	14	19	12	5	31	50	64
Premium conversion plans				7				

[1] Methods used to calculate the average number of paid holidays were revised in 1994 to count partial days more precisely. Average holidays for 1994 are not comparable with those reported in 1990 and 1992.

[2] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1996 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-term disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

[3] Prior to 1996, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

27. Work stoppages involving 1,000 workers or more

Measure	Annual totals		1999												2000
	1997	1998	Jan.[P]	Feb.[P]	Mar.[P]	Apr.[P]	May[P]	June[P]	July[P]	Aug.[P]	Sept.[P]	Oct.[P]	Nov.[P]	Dec.[P]	Jan.[P]
Number of stoppages:															
Beginning in period	29	34	1	2	0	1	3	2	1	1	2	0	1	0	0
In effect during period	34	34	5	5	2	3	6	6	6	3	5	2	2	1	1
Workers involved:															
Beginning in period (in thousands)	339	387	1.4	4.1	.0	8.0	9.6	2.2	1.7	11.0	19.1	.0	2.0	.0	.0
In effect during period (in thousands)	351	387	9.2	10.3	4.4	12.4	22.0	21.6	16.3	15.4	34.5	10.1	5.0	3.0	3.0
Days idle:															
Number (in thousands)	4,497	5,116	129.0	104.1	101.2	256.8	314.8	309.4	266.4	118.8	176.2	67.1	63.6	63.0	60.0
Percent of estimated working time[1]	.01	.02	.01	([2])	([2])	.01	.01	.01	.01	([2])	.01	([2])	([2])	([2])	([2])

[1] Agricultural and government employees are included in the total employed and total working time; private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time worked is found in " 'Total economy' measures of strike idleness," *Monthly Labor Review*, October 1968, pp. 54–56.

[2] Less than 0.005.

[P] = preliminary.

28. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Miscellaneous personal services	234.7	243.0	241.4	242.1	242.4	242.9	243.9	244.6	245.6	246.0	246.6	247.6	248.9	249.4	250.9
Commodity and service group:															
Commodities	141.9	144.4	144.6	144.5	143.9	143.9	144.5	145.8	146.4	146.2	146.1	146.2	147.4	149.2	149.3
Food and beverages	161.1	164.6	163.9	164.2	164.1	164.2	164.7	165.1	165.5	165.7	165.9	166.6	166.8	167.1	167.2
Commodities less food and beverages	130.5	132.5	133.2	132.8	131.9	131.9	132.5	134.3	134.9	134.6	134.4	134.0	135.7	138.4	138.4
Nondurables less food and beverages	132.6	137.5	138.6	138.2	136.6	136.7	138.0	141.0	141.9	141.3	140.9	140.5	143.9	148.5	148.5
Apparel	133.0	131.3	135.2	134.2	130.9	127.3	127.5	131.8	134.6	133.6	130.1	126.8	129.2	132.5	133.3
Nondurables less food, beverages, and apparel	137.4	146.0	145.7	145.6	144.8	146.8	148.8	151.2	151.2	150.7	152.1	153.1	157.2	162.7	162.3
Durables	127.6	126.0	126.1	125.8	125.7	125.6	125.4	125.7	125.9	126.0	125.9	125.7	125.3	125.6	125.6
Services	184.2	188.8	187.8	187.9	188.6	189.5	189.9	190.1	190.2	190.5	190.5	191.4	192.2	193.1	193.3
Rent of shelter[3]	189.6	195.0	194.3	194.2	194.9	195.7	196.1	196.1	196.3	196.3	196.3	197.6	198.5	199.7	199.8
Transporatation services	187.9	190.7	191.0	190.4	189.3	191.0	190.2	189.9	191.9	192.7	192.8	193.0	193.7	195.0	195.2
Other services	216.9	223.1	221.7	221.9	222.2	222.6	223.9	224.5	225.1	226.0	226.5	227.4	227.4	227.8	228.0
Special indexes:															
All items less food	163.4	167.0	166.7	166.6	166.7	167.2	167.7	168.5	168.8	168.8	168.8	169.2	170.3	171.9	172.0
All items less shelter	157.2	160.2	159.9	159.9	159.7	160.1	160.6	161.6	162.0	162.1	162.1	162.3	163.3	164.8	164.9
All items less medical care	158.6	162.0	161.6	161.6	161.6	162.0	162.5	163.2	163.6	163.6	163.6	164.0	164.9	166.3	166.4
Commodities less food	132.0	134.0	134.6	134.3	133.4	133.4	134.0	135.8	136.3	136.1	135.9	135.6	137.2	139.9	139.9
Nondurables less food	134.6	139.4	140.4	140.1	138.6	138.7	139.9	142.8	143.7	143.1	142.8	142.4	145.7	150.1	150.1
Nondurables less food and apparel	139.2	147.5	147.0	147.0	146.3	148.2	150.0	152.3	152.3	151.9	153.2	154.2	158.0	163.0	162.7
Nondurables	146.9	151.2	151.4	151.4	150.5	150.6	151.5	153.2	154.0	153.7	153.6	153.7	155.6	158.1	158.2
Services less rent of shelter[3]	191.8	195.8	194.5	194.7	195.6	196.5	196.9	197.3	197.4	197.9	198.0	198.6	199.2	199.9	200.2
Services less medical care services	178.4	182.7	181.8	181.8	182.6	183.4	183.8	183.9	184.1	184.3	184.3	185.1	185.8	186.7	186.9
Energy	102.9	106.6	105.0	105.6	106.8	108.7	111.3	113.2	111.6	111.2	112.2	112.5	116.7	122.2	120.7
All items less energy	170.9	174.4	174.2	174.1	174.0	174.3	174.5	175.1	175.7	175.8	175.7	176.2	176.8	177.7	178.0
All items less food and energy	173.4	177.0	176.8	176.6	176.6	176.9	177.1	177.7	178.3	178.4	178.2	178.7	179.4	180.4	180.7
Commodities less food and energy	143.2	144.1	144.9	144.5	143.7	143.2	143.0	144.6	145.3	145.0	144.2	143.6	144.2	145.3	145.9
Energy commodities	92.1	100.0	99.9	100.3	98.3	101.3	106.3	109.1	109.1	108.7	111.8	112.8	120.6	131.7	128.4
Services less energy	190.6	195.7	195.0	195.0	195.3	196.1	196.5	196.6	197.2	197.5	197.7	198.7	199.5	200.5	200.7
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items	159.7	163.2	162.7	162.8	162.8	163.3	163.8	164.7	165.0	165.1	165.1	165.5	166.4	167.8	167.9
All items (1967 = 100)	475.6	486.2	484.7	484.9	485.0	486.3	487.8	490.5	491.5	491.7	491.8	492.9	495.6	499.7	500.1
Food and beverages	160.4	163.8	163.0	163.3	163.3	163.4	163.9	164.3	164.7	164.9	165.2	165.9	166.1	166.4	166.5
Food	160.0	163.4	162.6	162.9	162.8	163.0	163.5	163.9	164.4	164.5	164.7	165.4	165.6	165.9	166.0
Food at home	160.0	163.0	162.2	162.6	162.5	162.5	162.9	163.5	164.0	164.0	164.2	165.1	165.1	165.3	165.4
Cereals and bakery products	180.9	184.7	184.5	184.8	185.5	186.1	184.8	185.0	185.0	184.5	185.7	185.5	185.8	185.9	186.9
Meats, poultry, fish, and eggs	147.0	147.6	146.3	146.1	146.9	146.8	148.2	148.9	148.8	150.1	149.4	149.8	150.8	152.0	152.5
Dairy and related products[1]	150.4	159.4	155.7	155.8	155.7	155.3	156.0	158.4	164.0	164.6	161.9	159.9	160.4	158.7	160.2
Fruits and vegetables	197.0	201.8	201.7	205.3	201.9	201.0	201.2	201.6	201.0	199.8	202.8	207.0	201.7	200.5	200.5
Nonalcoholic beverages and beverage materials	131.8	133.2	133.2	133.1	133.2	133.1	133.2	133.0	133.4	132.7	133.5	136.0	137.6	137.8	136.7
Other foods at home	150.2	152.8	153.0	152.6	152.8	153.0	153.5	153.3	152.9	152.3	152.7	153.7	153.8	154.5	153.4
Sugar and sweets	150.1	152.2	151.7	152.8	152.0	152.0	152.6	153.3	153.2	152.0	152.3	154.8	154.3	154.5	152.3
Fats and oils	146.5	147.9	148.6	147.0	147.2	147.8	148.3	148.1	148.6	144.9	144.7	146.8	145.2	145.7	144.5
Other foods	165.4	168.8	169.0	168.5	169.0	169.2	169.7	169.2	168.5	168.8	169.4	169.8	170.5	171.6	170.7
Other miscellaneous foods[1,2]	102.6	104.6	105.2	104.7	104.4	103.9	104.4	105.1	103.8	103.4	105.2	103.9	106.2	106.7	104.7
Food away from home[1]	161.1	165.0	164.4	164.5	164.4	164.9	165.5	165.8	166.1	166.5	166.8	167.1	167.6	167.9	168.1
Other food away from home[1,2]	101.6	105.1	104.1	104.2	104.5	105.3	105.8	106.2	106.6	106.8	106.9	107.4	107.8	107.8	108.3
Alcoholic beverages	164.6	168.8	167.8	168.5	168.7	169.1	169.2	169.8	169.5	170.4	171.0	171.6	172.2	172.8	172.9
Housing	156.7	160.0	159.1	159.2	160.2	160.7	161.0	161.3	161.0	161.1	161.1	161.8	162.7	163.2	163.3
Shelter	176.6	181.6	180.8	180.9	181.5	182.0	182.4	182.6	182.8	183.1	183.3	184.1	184.8	185.6	185.8
Rent of primary residence	171.7	177.1	176.0	176.4	176.8	177.1	177.5	178.0	178.4	179.3	179.9	180.3	180.7	181.2	181.4
Lodging away from home[2]	109.0	122.2	114.5	112.0	113.8	116.7	116.8	113.8	113.1	108.4	105.7	110.8	114.5	119.9	118.7
Owners' equivalent rent of primary residence[3]	171.1	175.7	174.8	175.1	175.4	175.7	176.1	176.5	176.8	177.4	177.8	178.2	178.6	178.8	179.1
Tenants' and household insurance[1,2]	100.0	101.6	100.6	100.9	102.3	102.2	102.3	102.5	102.4	102.3	102.4	102.6	102.6	102.8	103.3
Fuels and utilities	128.4	128.7	125.5	126.3	130.2	131.1	131.4	132.6	130.1	129.8	129.2	129.5	132.0	131.2	131.1
Fuels	113.3	113.0	109.7	110.6	114.7	115.7	115.9	117.2	114.4	114.0	113.5	113.6	116.3	115.4	115.2
Fuel oil and other fuels	90.3	91.7	88.1	88.0	87.8	87.6	89.3	93.9	97.7	100.7	106.0	114.0	144.5	129.6	123.0
Gas (piped) and electricity	120.8	120.4	116.9	117.9	122.6	123.6	123.7	124.9	121.5	120.9	119.8	119.4	120.1	120.2	120.5
Household furnishings and operations	125.0	124.7	125.2	124.8	124.8	124.9	124.7	124.8	124.5	124.2	124.2	124.5	124.6	125.3	125.6
Apparel	131.6	130.1	133.7	133.0	129.6	126.4	126.4	130.5	133.1	132.3	129.0	125.9	127.9	131.0	131.8
Men's and boys' apparel	131.4	131.2	133.6	134.0	131.6	128.6	127.2	130.3	134.0	133.3	131.6	129.3	129.9	131.5	131.5
Women's and girls' apparel	123.9	121.3	126.5	125.5	120.6	114.4	116.0	123.3	126.0	124.4	119.8	114.2	118.0	123.5	124.3
Infants' and toddlers' apparel[1]	126.7	130.3	129.3	128.9	128.0	128.4	129.6	131.4	134.1	134.3	134.8	134.9	134.7	135.7	134.1
Footwear	128.7	126.2	129.5	127.9	125.8	125.8	124.4	125.1	126.6	126.9	124.2	122.3	122.6	124.7	127.1
Transportation	140.5	143.4	142.9	143.1	142.4	143.7	145.0	146.0	146.6	146.9	147.6	147.7	149.1	152.9	152.2
Private transportation	138.0	140.7	140.1	140.3	139.9	140.9	142.4	143.6	143.9	144.2	145.0	145.1	146.4	150.1	149.5
New and used motor vehicles[2]	100.3	100.4	99.7	99.8	100.0	100.1	100.2	100.7	101.2	101.5	101.5	101.2	100.7	100.8	101.2

28. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Miscellaneous personal services	234.7	243.0	241.4	242.1	242.4	242.9	243.9	244.6	245.6	246.0	246.6	247.6	248.9	249.4	250.9
Commodity and service group:															
Commodities	141.9	144.4	144.6	144.5	143.9	143.9	144.5	145.8	146.4	146.2	146.1	146.2	147.4	149.2	149.3
Food and beverages	161.1	164.6	163.9	164.2	164.1	164.2	164.7	165.1	165.5	165.7	165.9	166.6	166.8	167.1	167.2
Commodities less food and beverages	130.5	132.5	133.2	132.8	131.9	131.9	132.5	134.3	134.9	134.6	134.4	134.0	135.7	138.4	138.4
Nondurables less food and beverages	132.6	137.5	138.6	138.2	136.6	136.7	138.0	141.0	141.9	141.3	140.9	140.5	143.9	148.5	148.5
Apparel	133.0	131.3	135.2	134.2	130.9	127.3	127.5	131.8	134.6	133.6	130.1	126.8	129.2	132.5	133.3
Nondurables less food, beverages, and apparel	137.4	146.0	145.7	145.6	144.8	146.8	148.8	151.2	151.2	150.7	152.1	153.1	157.2	162.7	162.3
Durables	127.6	126.0	126.1	125.8	125.7	125.6	125.4	125.7	125.9	126.0	125.9	125.7	125.3	125.6	125.6
Services	184.2	188.8	187.8	187.9	188.6	189.5	189.9	190.1	190.2	190.5	190.5	191.4	192.2	193.1	193.3
Rent of shelter[3]	189.6	195.0	194.3	194.2	194.9	195.7	196.1	196.1	196.3	196.3	196.3	197.6	198.5	199.7	199.8
Transporatation services	187.9	190.7	191.0	190.4	189.3	191.0	190.2	189.9	191.9	192.7	192.8	193.0	193.7	195.0	195.2
Other services	216.9	223.1	221.7	221.9	222.2	222.6	223.9	224.5	225.1	226.0	226.5	227.4	227.4	227.8	228.0
Special indexes:															
All items less food	163.4	167.0	166.7	166.6	166.7	167.2	167.7	168.5	168.8	168.8	168.8	169.2	170.3	171.9	172.0
All items less shelter	157.2	160.2	159.9	159.9	159.7	160.1	160.6	161.6	162.0	162.1	162.1	162.3	163.3	164.8	164.9
All items less medical care	158.6	162.0	161.6	161.6	161.6	162.0	162.5	163.2	163.6	163.6	163.6	164.0	164.9	166.3	166.4
Commodities less food	132.0	134.0	134.6	134.3	133.4	133.4	134.0	135.8	136.3	136.1	135.9	135.6	137.2	139.9	139.9
Nondurables less food	134.6	139.4	140.4	140.1	138.6	138.7	139.9	142.8	143.7	143.1	142.8	142.4	145.7	150.1	150.1
Nondurables less food and apparel	139.2	147.5	147.0	147.0	146.3	148.2	150.0	152.3	152.3	151.9	153.2	154.2	158.0	163.0	162.7
Nondurables	146.9	151.2	151.4	151.4	150.5	150.6	151.5	153.2	154.0	153.7	153.6	153.7	155.6	158.1	158.2
Services less rent of shelter[3]	191.8	195.8	194.5	194.7	195.6	196.5	196.9	197.3	197.4	197.9	198.0	198.6	199.2	199.9	200.2
Services less medical care services	178.4	182.7	181.8	181.8	182.6	183.4	183.8	183.9	184.1	184.3	184.3	185.1	185.8	186.7	186.9
Energy	102.9	106.6	105.0	105.6	106.8	108.7	111.3	113.2	111.6	111.2	112.2	112.5	116.7	122.2	120.7
All items less energy	170.9	174.4	174.2	174.1	174.0	174.3	174.5	175.1	175.7	175.8	175.7	176.2	176.8	177.7	178.0
All items less food and energy	173.4	177.0	176.8	176.6	176.6	176.9	177.1	177.7	178.3	178.4	178.2	178.7	179.4	180.4	180.7
Commodities less food and energy	143.2	144.1	144.9	144.5	143.7	143.2	143.0	144.6	145.3	145.0	144.2	143.6	144.2	145.3	145.9
Energy commodities	92.1	100.0	99.9	100.3	98.3	101.3	106.3	109.1	109.1	108.7	111.8	112.8	120.6	131.7	128.4
Services less energy	190.6	195.7	195.0	195.0	195.3	196.1	196.5	196.6	197.2	197.5	197.7	198.7	199.5	200.5	200.7
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items	159.7	163.2	162.7	162.8	162.8	163.3	163.8	164.7	165.0	165.1	165.1	165.5	166.4	167.8	167.9
All items (1967 = 100)	475.6	486.2	484.7	484.9	485.0	486.3	487.8	490.5	491.5	491.7	491.8	492.9	495.6	499.7	500.1
Food and beverages	160.4	163.8	163.0	163.3	163.3	163.4	163.9	164.3	164.7	164.9	165.2	165.9	166.1	166.4	166.5
Food	160.0	163.4	162.6	162.9	162.8	163.0	163.5	163.9	164.4	164.5	164.7	165.4	165.6	165.9	166.0
Food at home	160.0	163.0	162.2	162.6	162.5	162.5	162.9	163.5	164.0	164.0	164.2	165.1	165.1	165.3	165.4
Cereals and bakery products	180.9	184.7	184.5	184.8	185.5	186.1	184.8	185.0	185.0	184.5	185.7	185.5	185.8	185.9	186.9
Meats, poultry, fish, and eggs	147.0	147.6	146.3	146.1	146.9	146.8	148.2	148.9	148.8	150.1	149.4	149.8	150.8	152.0	152.5
Dairy and related products[1]	150.4	159.4	155.7	155.8	155.7	155.3	156.0	158.4	164.0	164.6	161.9	159.9	160.4	158.7	160.2
Fruits and vegetables	197.0	201.8	201.7	205.3	201.9	201.0	201.2	201.6	201.0	199.8	202.8	207.0	201.7	200.5	200.5
Nonalcoholic beverages and beverage materials	131.8	133.2	133.2	133.1	133.2	133.1	133.2	133.0	133.4	132.7	133.5	136.0	137.6	137.8	136.7
Other foods at home	150.2	152.8	153.0	152.6	152.8	153.0	153.5	153.3	152.9	152.3	152.7	153.7	153.8	154.5	153.4
Sugar and sweets	150.1	152.2	151.7	152.8	152.0	152.0	152.6	153.3	153.2	152.0	152.3	154.8	154.3	154.5	152.3
Fats and oils	146.5	147.9	148.6	147.0	147.2	147.8	148.3	148.1	148.6	144.9	144.7	146.8	145.2	145.7	144.5
Other foods	165.4	168.8	169.0	168.5	169.0	169.2	169.7	169.2	168.5	168.8	169.4	169.8	170.5	171.6	170.7
Other miscellaneous foods[1,2]	102.6	104.6	105.2	104.7	104.4	103.9	104.4	105.1	103.8	103.4	105.2	103.9	106.2	106.7	104.7
Food away from home[1]	161.1	165.0	164.4	164.5	164.4	164.9	165.5	165.8	166.1	166.5	166.8	167.1	167.6	167.9	168.1
Other food away from home[1,2]	101.6	105.1	104.1	104.2	104.5	105.3	105.8	106.2	106.6	106.8	106.9	107.4	107.8	107.8	108.3
Alcoholic beverages	164.6	168.8	167.8	168.5	168.7	169.1	169.2	169.8	169.5	170.4	171.0	171.6	172.2	172.8	172.9
Housing	156.7	160.0	159.1	159.2	160.2	160.7	161.0	161.3	161.0	161.1	161.1	161.8	162.7	163.2	163.3
Shelter	176.6	181.6	180.8	180.9	181.5	182.0	182.4	182.6	182.8	183.1	183.3	184.1	184.8	185.6	185.8
Rent of primary residence	171.7	177.1	176.0	176.4	176.8	177.1	177.5	178.0	178.4	179.3	179.9	180.3	180.7	181.2	181.4
Lodging away from home[2]	109.0	122.2	114.5	112.0	113.8	116.7	116.8	113.8	113.1	108.4	105.7	110.8	114.5	119.9	118.7
Owners' equivalent rent of primary residence[3]	171.1	175.7	174.8	175.1	175.4	175.7	176.1	176.5	176.8	177.4	177.8	178.2	178.6	178.8	179.1
Tenants' and household insurance[1,2]	100.0	101.6	100.6	100.9	102.3	102.2	102.3	102.5	102.4	102.3	102.4	102.6	102.6	102.8	103.3
Fuels and utilities	128.4	128.7	125.5	126.3	130.2	131.1	131.4	132.6	130.1	129.8	129.2	129.5	132.0	131.2	131.1
Fuels	113.3	113.0	109.7	110.6	114.7	115.7	115.9	117.2	114.4	114.0	113.5	113.6	116.3	115.4	115.2
Fuel oil and other fuels	90.3	91.7	88.1	88.0	87.8	87.6	89.3	93.9	97.7	100.7	106.0	114.0	144.5	129.6	123.0
Gas (piped) and electricity	120.8	120.4	116.9	117.9	122.6	123.6	123.7	124.9	121.5	120.9	119.8	119.4	120.1	120.2	120.5
Household furnishings and operations	125.0	124.7	125.2	124.8	124.8	124.9	124.7	124.8	124.5	124.2	124.2	124.5	124.6	125.3	125.6
Apparel	131.6	130.1	133.7	133.0	129.6	126.4	126.4	130.5	133.1	132.3	129.0	125.9	127.9	131.0	131.8
Men's and boys' apparel	131.4	131.2	133.6	134.0	131.6	128.6	127.2	130.3	134.0	133.3	131.6	129.3	129.9	131.5	131.5
Women's and girls' apparel	123.9	121.3	126.5	125.5	120.6	114.4	116.0	123.3	126.0	124.4	119.8	114.2	118.0	123.5	124.3
Infants' and toddlers' apparel[1]	126.7	130.3	129.3	128.9	128.0	128.4	129.6	131.4	134.1	134.3	134.8	134.9	134.7	135.7	134.1
Footwear	128.7	126.2	129.5	127.9	125.8	125.8	124.4	125.1	126.6	126.9	124.2	122.3	122.6	124.7	127.1
Transportation	140.5	143.4	142.9	143.1	142.4	143.7	145.0	146.0	146.6	146.9	147.6	147.7	149.1	152.9	152.2
Private transportation	138.0	140.7	140.1	140.3	139.9	140.9	142.4	143.6	143.9	144.2	145.0	145.1	146.4	150.1	149.5
New and used motor vehicles[2]	100.3	100.4	99.7	99.8	100.0	100.1	100.2	100.7	101.2	101.5	101.5	101.2	100.7	100.8	101.2

28. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
New vehicles	144.6	144.0	144.5	144.0	143.6	143.2	142.6	142.8	143.5	144.3	144.7	144.5	144.2	144.5	144.7
Used cars and trucks[1]	152.0	153.3	149.6	150.9	152.2	153.7	155.2	157.0	157.7	157.3	156.3	155.3	154.4	154.4	155.4
Motor fuel	92.2	100.8	100.8	101.3	99.2	102.6	107.8	110.6	110.0	109.5	112.3	112.9	118.6	132.0	128.5
Gasoline (all types)	91.7	100.2	100.3	100.8	98.7	102.1	107.3	110.0	109.4	108.9	111.7	112.3	117.9	131.2	127.8
Motor vehicle parts and equipment	100.5	100.0	99.6	99.7	99.6	99.5	99.6	99.9	99.8	100.6	100.2	100.3	100.5	100.9	100.6
Motor vehicle maintenance and repair	168.2	173.3	172.3	172.7	173.1	173.5	173.5	174.3	174.7	175.1	175.2	176.1	176.6	177.2	177.4
Public transportation	187.1	193.1	196.4	193.9	189.0	195.7	192.5	190.7	196.3	197.0	196.0	194.8	198.8	203.4	202.9
Medical care	241.4	249.7	248.2	248.7	249.4	250.3	251.0	251.4	251.9	252.5	253.2	254.5	256.2	257.3	258.0
Medical care commodities	218.6	226.8	225.7	225.7	226.6	227.8	228.4	229.0	229.1	229.5	230.2	230.7	231.0	231.8	232.4
Medical care services	246.6	254.9	253.3	253.8	254.5	255.3	256.0	256.4	257.0	257.6	258.4	259.9	261.9	263.1	263.8
Professional services	223.7	230.8	229.7	230.2	231.0	231.4	231.7	232.0	232.5	233.1	233.4	234.8	236.7	238.0	238.6
Hospital and related services	283.6	295.5	292.3	293.0	293.6	295.3	297.3	298.2	298.9	299.8	302.1	304.1	306.4	307.5	308.7
Recreation[2]	100.9	101.3	101.4	101.5	101.6	101.6	101.5	101.0	101.1	101.0	101.2	101.4	101.6	102.0	102.0
Video and audio[1,2]	101.1	100.5	100.8	100.6	100.5	100.4	100.7	99.8	99.9	99.9	99.8	100.2	100.4	100.6	100.0
Education and communication[2]	100.4	101.5	100.9	100.7	100.7	100.8	101.5	102.1	102.3	102.5	102.5	103.0	102.5	102.2	102.1
Education[2]	102.1	107.2	105.7	105.9	106.0	106.3	107.7	109.5	109.7	109.4	109.4	110.5	110.9	111.0	111.1
Educational books and supplies	253.1	264.1	263.9	264.3	264.8	265.0	267.2	269.9	271.8	256.5	256.9	276.6	281.3	280.0	279.9
Tuition, other school fees, and child care	288.5	302.8	298.3	298.7	299.2	300.2	304.1	309.5	310.0	310.4	310.4	311.7	312.7	312.8	313.4
Communication[1,2]	99.1	96.9	97.0	96.5	96.4	96.3	96.5	96.2	96.3	96.9	97.0	97.1	95.7	95.3	94.8
Information and information processing[1,2]	99.0	96.5	96.7	96.2	96.0	96.0	96.1	95.8	95.9	96.6	96.6	96.7	95.3	94.8	94.4
Telephone services[1,2]	100.7	100.2	100.0	99.8	99.9	99.7	99.9	99.7	100.0	100.8	100.9	101.1	99.6	99.1	98.8
Information and information processing other than telephone services[1,4]	41.2	31.6	33.0	31.8	30.8	31.1	30.8	30.3	29.9	29.3	29.3	28.9	28.6	28.2	27.6
Personal computers and peripheral equipment[1,2]	77.9	53.1	55.9	55.1	54.0	52.5	50.6	49.4	48.1	46.9	46.9	45.7	44.5	43.6	42.0
Other goods and services	236.1	261.9	259.5	258.8	258.7	262.0	260.7	267.3	267.9	267.4	267.3	269.3	271.7	273.3	278.0
Tobacco and smoking products	274.8	356.2	350.5	345.9	343.5	356.6	350.6	374.4	374.0	370.4	369.7	375.7	383.6	387.8	404.9
Personal care[1]	156.8	161.3	160.4	160.8	161.3	161.3	161.6	161.9	162.6	163.0	163.1	163.5	163.9	164.3	164.6
Personal care products[1]	149.3	152.5	151.7	151.6	153.3	152.7	153.1	153.7	154.1	154.0	153.1	153.4	153.2	154.1	153.9
Personal care services[1]	166.3	171.7	170.6	171.4	171.2	171.8	172.2	172.4	173.2	174.4	174.7	175.3	176.1	176.6	176.6
Miscellaneous personal services	234.0	243.1	241.7	242.3	242.6	243.2	243.8	244.5	245.5	245.9	246.7	247.6	248.9	249.4	250.4
Commodity and service group:															
Commodities	141.8	144.7	144.7	144.6	144.0	144.2	144.8	146.3	146.8	146.6	146.6	146.6	147.8	149.8	149.9
Food and beverages	160.4	163.8	163.0	163.3	163.3	163.4	163.9	164.3	164.7	164.9	165.2	165.9	166.1	166.4	166.5
Commodities less food and beverages	130.6	133.2	133.6	133.4	132.5	132.7	133.4	135.4	165.9	135.6	135.4	135.1	136.8	139.6	139.6
Nondurables less food and beverages	132.1	138.1	139.1	138.8	137.0	137.5	138.8	142.1	142.9	142.2	142.0	141.7	145.1	150.2	150.2
Apparel	131.6	130.1	133.7	133.0	129.6	126.4	126.4	130.5	133.1	132.3	129.0	125.9	127.9	131.0	131.8
Nondurables less food, beverages, and apparel	137.0	147.2	146.7	146.6	145.7	148.1	150.2	153.2	153.1	152.5	153.9	155.0	159.3	165.7	165.2
Durables	127.3	126.0	125.8	125.6	125.6	125.7	125.7	126.1	126.3	126.4	126.3	126.0	125.6	125.8	126.0
Services	181.0	185.3	184.2	184.4	185.2	185.9	186.3	186.6	186.7	187.1	187.2	187.9	188.5	189.2	189.4
Rent of shelter[3]	170.1	174.9	174.1	174.2	174.7	175.3	175.6	175.8	176.1	176.3	176.5	177.3	178.0	178.7	178.9
Transporatation services	185.4	187.9	187.9	187.5	186.7	188.0	187.4	187.3	189.0	189.8	189.9	190.2	190.8	191.8	192.0
Other services	213.7	219.6	218.1	218.4	218.8	219.2	220.3	220.9	221.6	222.3	222.9	223.8	223.7	224.0	224.2
Special indexes:															
All items less food	159.5	163.1	162.6	162.6	162.7	163.2	163.7	164.7	165.0	165.1	165.1	165.4	166.4	168.0	168.2
All items less shelter	155.0	158.1	157.7	157.7	157.6	158.0	158.6	159.7	160.1	160.1	160.1	160.3	161.3	162.8	163.0
All items less medical care	155.8	159.2	158.8	158.8	158.8	159.2	159.7	160.7	161.0	161.1	161.1	161.4	162.3	163.6	163.8
Commodities less food	132.0	134.6	135.0	134.8	133.9	134.2	134.8	136.7	137.2	137.0	136.8	136.5	138.2	141.0	141.0
Nondurables less food	134.1	140.0	140.8	140.6	138.9	139.4	140.7	143.8	144.6	144.0	143.8	143.6	146.8	151.7	151.7
Nondurables less food and apparel	138.7	148.4	147.9	147.9	147.0	149.3	151.2	154.0	153.8	153.4	154.7	155.8	159.8	165.7	165.3
Nondurables	146.5	151.3	151.4	151.4	150.5	150.8	151.7	153.6	154.3	154.0	154.0	154.2	156.0	158.8	158.9
Services less rent of shelter[3]	170.7	174.1	172.7	173.0	174.0	174.7	175.0	175.5	175.4	175.8	175.9	176.4	176.9	177.4	177.7
Services less medical care services	175.4	179.5	178.4	178.6	179.4	180.1	180.4	180.7	180.8	181.1	181.2	181.9	182.4	183.1	183.3
Energy	102.1	106.1	104.5	105.2	106.2	108.4	111.1	113.1	111.4	111.0	112.1	112.5	116.7	122.9	121.0
All items less energy	167.6	171.1	170.7	170.7	170.6	170.9	171.1	171.8	172.4	172.6	172.5	172.8	173.3	174.1	174.5
All items less food and energy	169.6	173.1	172.9	172.8	172.7	172.9	173.1	173.9	174.5	174.7	174.5	174.8	175.3	176.2	176.7
Commodities less food and energy	142.7	144.3	144.8	144.5	143.8	143.5	143.3	145.0	145.7	145.4	144.6	144.1	144.6	145.6	146.4
Energy commodities	92.3	100.3	100.2	100.6	98.6	101.8	106.8	109.7	109.4	109.1	112.1	113.1	120.4	132.0	128.3
Services less energy	187.7	192.6	191.8	191.9	192.2	192.8	193.2	193.4	194.0	194.4	194.7	195.5	196.2	196.9	197.1

[1] Not seasonally adjusted.

[2] Indexes on a December 1997 = 100 base.

[3] Indexes on a December 1982 = 100 base.

[4] Indexes on a December 1988 = 100 base.

– Data not available.

NOTE: Index applies to a month as a whole, not to any specific date.

29. Consumer Price Index: U.S. city average and available local area data: all items

[1982–84 = 100, unless otherwise indicated]

Area	Pricing schedule[1]	All Urban Consumers							Urban Wage Earners						
		1999			2000				1999			2000			
		Mar.	Apr.	Dec.	Jan.	Feb.	Mar.	Apr.	Mar.	Apr.	Dec.	Jan.	Feb.	Mar.	Apr.
U.S. city average	M	165.0	166.2	168.3	168.7	169.7	171.1	171.2	161.4	162.7	165.1	165.5	166.4	167.8	167.9
Region and area size[2]															
Northeast urban	M	171.9	172.8	175.5	176.1	177.4	178.3	178.4	168.5	169.5	172.6	173.0	174.3	175.1	175.3
Size A—More than 1,500,000	M	172.8	173.6	176.3	176.9	178.3	179.2	179.1	168.3	169.3	172.4	172.8	174.1	174.9	175.0
Size B/C—50,000 to 1,500,000[3]	M	103.2	103.9	105.4	105.8	106.7	107.2	107.4	102.8	103.5	105.2	105.5	106.3	106.8	107.0
Midwest urban[4]	M	161.0	162.2	164.4	164.8	165.8	167.0	166.9	156.9	158.2	160.7	161.2	162.1	163.4	163.2
Size A—More than 1,500,000	M	162.4	163.6	165.5	166.1	167.2	168.3	168.2	157.5	158.8	161.1	161.6	162.7	163.8	163.6
Size B/C—50,000 to 1,500,000[3]	M	103.0	103.7	105.3	105.5	106.0	106.8	106.8	102.6	103.5	105.3	105.5	106.1	106.9	106.9
Size D—Nonmetropolitan (less than 50,000)	M	155.7	156.4	158.9	159.0	159.8	161.5	161.3	153.4	154.4	157.3	157.6	158.3	160.0	159.9
South urban	M	160.6	161.5	163.6	164.0	164.7	166.4	166.6	158.4	159.4	162.0	162.2	163.0	164.6	164.9
Size A—More than 1,500,000	M	159.7	160.5	163.0	163.5	164.1	165.9	166.1	156.9	157.9	160.9	161.2	161.8	163.4	163.7
Size B/C—50,000 to 1,500,000[3]	M	103.3	103.9	105.2	105.3	105.9	106.9	107.1	102.8	103.5	105.0	105.1	105.7	106.7	106.9
Size D—Nonmetropolitan (less than 50,000)	M	161.5	162.6	163.5	164.4	165.1	166.8	166.7	161.5	162.7	164.6	165.1	165.8	167.6	167.6
West urban	M	167.3	169.0	170.5	171.0	171.9	173.4	173.7	163.2	164.9	166.4	166.7	167.4	169.1	169.4
Size A—More than 1,500,000	M	168.2	170.0	171.7	172.3	173.3	174.9	175.1	162.3	164.2	165.8	166.3	167.1	168.7	169.0
Size B/C—50,000 to 1,500,000[3]	M	104.1	105.1	105.7	105.7	106.2	107.1	107.2	104.0	105.0	105.5	105.5	105.9	106.8	107.1
Size classes:															
A[5]	M	149.5	150.5	152.5	153.0	154.0	155.2	155.2	147.7	148.9	151.2	151.6	152.5	153.6	153.7
B/C[3]	M	103.3	104.1	105.3	105.5	106.1	106.9	107.1	102.9	103.7	105.2	105.3	105.9	106.8	106.9
D	M	161.1	162.1	163.7	164.3	164.9	166.7	166.7	159.8	160.9	163.1	163.5	164.1	165.9	166.0
Selected local areas[6]															
Chicago–Gary–Kenosha, IL–IN–WI	M	167.0	167.6	169.2	170.1	171.3	172.0	171.7	161.1	161.7	163.7	164.5	165.6	166.4	166.1
Los Angeles–Riverside–Orange County, CA	M	165.0	166.6	167.3	167.9	169.2	170.6	170.6	158.3	160.1	160.9	161.2	162.4	163.9	163.9
New York, NY–Northern NJ–Long Island, NY–NJ–CT–PA	M	175.5	176.0	178.6	179.2	180.4	181.4	181.2	170.8	171.3	174.3	174.6	175.8	176.6	176.6
Boston–Brockton–Nashua, MA–NH–ME–CT	1	174.8	–	–	180.2	–	182.7	–	172.3	–	–	178.6	–	181.1	–
Cleveland–Akron, OH	1	161.2	–	–	164.4	–	166.8	–	152.9	–	–	156.8	–	159.2	–
Dallas–Ft Worth, TX	1	156.4	–	–	160.4	–	163.1	–	155.8	–	–	160.3	–	162.9	–
Washington–Baltimore, DC–MD–VA–WV[7]	1	103.2	–	–	105.3	–	107.0	–	102.8	–	–	105.3	–	106.9	–
Atlanta, GA	2	–	164.0	167.0	–	167.4	–	169.8	–	160.9	164.6	–	164.9	–	167.2
Detroit–Ann Arbor–Flint, MI	2	–	164.1	165.6	–	167.2	–	168.1	–	158.7	160.4	–	162.0	–	162.8
Houston–Galveston–Brazoria, TX	2	–	148.3	150.3	–	152.1	–	152.7	–	146.6	149.2	–	150.5	–	151.3
Miami–Ft. Lauderdale, FL	2	–	161.7	164.8	–	165.9	–	166.9	–	159.1	162.7	–	163.5	–	164.5
Philadelphia–Wilmington–Atlantic City, PA–NJ–DE–MD	2	–	171.1	172.9	–	174.7	–	175.7	–	170.6	172.8	–	174.5	–	175.7
San Francisco–Oakland–San Jose, CA	2	–	172.2	174.5	–	176.5	–	178.6	–	168.8	170.9	–	172.5	–	174.8
Seattle–Tacoma–Bremerton, WA	2	–	172.2	174.4	–	176.0	–	177.7	–	167.8	170.1	–	171.5	–	173.2

[1] Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:
M—Every month.
1—January, March, May, July, September, and November.
2—February, April, June, August, October, and December.

[2] Regions defined as the four Census regions.

[3] Indexes on a December 1996 = 100 base.

[4] The "North Central" region has been renamed the "Midwest" region by the Census Bureau. It is composed of the same geographic entities.

[5] Indexes on a December 1986 = 100 base.

[6] In addition, the following metropolitan areas are published semiannually and appear in tables 34 and 39 of the January and July issues of the *CPI Detailed Report*: Anchorage, AK; Cincinnati–Hamilton, OH–KY–IN; Denver–Boulder–Greeley, CO; Honolulu, HI; Kansas City, MO–KS; Milwaukee–Racine, WI; Minneapolis–St. Paul, MN–WI; Pittsburgh, PA; Portland–Salem, OR–WA; St Louis, MO–IL; San Diego, CA; Tampa–St. Petersburg–Clearwater, FL.

[7] Indexes on a November 1996 = 100 base.

– Data not available.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Each local index has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error. As a result, local area indexes show greater volatility than the national index, although their long-term trends are similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in their escalator clauses. Index applies to a month as a whole, not to any specific date.

30. Annual data: Consumer Price Index, U.S. city average, all items and major groups

[1982–84 = 100]

Series	1991	1992	1993	1994	1995	1996	1997	1998	1999
Consumer Price Index for All Urban Consumers:									
All items:									
Index	136.2	140.3	144.5	148.2	152.4	156.9	160.5	163.0	166.6
Percent change	4.2	3.0	3.0	2.6	2.8	3.0	2.3	1.6	2.2
Food and beverages:									
Index	136.8	138.7	141.6	144.9	148.9	153.7	157.7	161.1	164.6
Percent change	3.6	1.4	2.1	2.3	2.8	3.2	2.6	2.2	2.2
Housing:									
Index	133.6	137.5	141.2	144.8	148.5	152.8	156.8	160.4	163.9
Percent change	4.0	2.9	2.7	2.5	2.6	2.9	2.6	2.3	2.2
Apparel:									
Index	128.7	131.9	133.7	133.4	132.0	131.7	132.9	133.0	131.3
Percent change	3.7	2.5	1.4	–.2	–1.0	–.2	.9	.1	–1.3
Transportation:									
Index	123.8	126.5	130.4	134.3	139.1	143.0	144.3	141.6	144.4
Percent change	2.7	2.2	3.1	3.0	3.6	2.8	0.9	–1.9	2.0
Medical care:									
Index	177.0	190.1	201.4	211.0	220.5	228.2	234.6	242.1	250.6
Percent change	8.7	7.4	5.9	4.8	4.5	3.5	2.8	3.2	3.5
Other goods and services:									
Index	171.6	183.3	192.9	198.5	206.9	215.4	224.8	237.7	258.3
Percent change	7.9	6.8	5.2	2.9	4.2	4.1	4.4	5.7	8.7
Consumer Price Index for Urban Wage Earners and Clerical Workers:									
All items:									
Index	134.3	138.2	142.1	145.6	149.8	154.1	157.6	159.7	163.2
Percent change	4.1	2.9	2.8	2.5	2.9	2.9	2.3	1.3	2.2

31. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Finished goods	130.7	133.0	131.9	132.4	132.7	132.9	133.7	134.7	135.1	134.9	134.9	134.7	136.0	137.0	137.0
Finished consumer goods	128.9	132.0	130.4	131.2	131.7	132.1	133.2	134.6	134.5	134.3	134.3	133.9	135.6	137.0	136.9
Finished consumer foods	134.3	135.1	133.4	134.5	135.1	134.6	135.9	136.7	135.8	135.4	135.6	135.0	135.9	135.9	137.1
Finshed consumer goods excluding foods	126.4	130.5	129.0	129.6	130.0	130.8	131.9	133.5	133.7	133.6	133.6	133.3	135.4	137.3	136.6
Nondurable goods less food	122.2	127.9	125.7	126.6	127.5	128.9	130.4	132.8	131.5	131.6	131.7	131.4	134.3	137.0	136.0
Durable goods	132.9	133.0	133.1	132.8	132.3	131.7	131.6	131.2	134.9	134.6	134.4	134.1	134.0	134.0	133.9
Capital equipment	137.6	137.6	137.8	137.6	137.2	137.0	136.9	136.7	138.5	138.3	138.3	138.4	138.4	138.5	138.7
Intermediate materials, supplies, and components	123.0	123.2	121.6	122.2	123.0	123.9	124.6	125.3	125.0	125.2	125.4	125.9	126.8	127.9	128.0
Materials and components for manufacturing	126.1	124.6	123.2	123.8	124.1	124.6	125.0	125.4	125.9	125.9	125.9	126.4	126.8	127.4	128.0
Materials for food manufacturing	123.2	120.8	118.1	119.6	120.0	119.0	121.1	122.0	122.2	120.9	118.2	117.6	117.8	118.1	119.6
Materials for nondurable manufacturing	126.7	124.9	122.7	123.3	123.8	124.8	125.5	126.5	127.7	127.8	128.2	128.6	129.6	131.3	132.1
Materials for durable manufacturing	128.0	125.1	123.2	124.3	124.8	126.1	126.2	126.2	126.5	126.7	127.2	128.6	129.4	129.5	129.8
Components for manufacturing	125.9	125.7	125.7	125.6	125.7	125.6	125.6	125.7	125.7	125.7	125.8	125.9	125.7	125.7	125.9
Materials and components for construction	146.8	148.9	148.0	148.5	149.5	150.5	150.4	149.6	149.1	149.4	149.8	150.4	150.8	151.3	151.6
Processed fuels and lubricants	81.1	84.6	80.6	82.5	84.9	87.6	90.0	92.5	89.3	90.2	90.6	91.5	94.9	98.1	96.3
Containers	140.8	142.5	140.4	141.6	142.2	142.1	143.6	145.7	146.3	146.5	146.5	147.2	147.3	148.3	151.8
Supplies	134.8	134.2	133.8	133.7	133.9	133.9	134.2	134.4	134.8	135.0	135.1	135.2	135.5	136.0	136.2
Crude materials for further processing	96.8	98.2	91.1	97.4	97.4	97.9	103.1	107.3	104.0	109.2	103.5	105.8	111.2	113.3	110.6
Foodstuffs and feedstuffs	103.9	98.7	95.4	99.6	99.5	96.2	100.1	100.1	98.8	99.5	96.9	96.5	97.6	101.3	103.5
Crude nonfood materials	88.4	94.3	84.8	92.3	92.5	95.5	101.5	108.3	103.8	111.9	104.3	108.3	116.5	117.5	111.5
Special groupings:															
Finished goods, excluding foods	129.5	132.3	131.3	131.6	131.8	132.3	133.0	134.0	134.7	134.7	134.6	134.5	135.9	137.2	136.8
Finished energy goods	75.1	78.8	75.9	77.5	78.6	80.7	83.5	85.8	83.5	83.6	83.6	83.8	87.4	92.0	90.1
Finished goods less energy	141.1	143.0	142.3	142.5	142.6	142.3	142.5	143.1	144.2	144.0	144.0	143.6	144.2	144.3	144.7
Finished consumer goods less energy	142.5	145.2	144.2	144.6	144.8	144.5	144.9	145.8	146.6	146.3	146.4	145.8	146.6	146.7	147.2
Finished goods less food and energy	143.7	146.1	145.8	145.6	145.5	145.3	145.2	145.7	147.5	147.4	147.4	147.0	147.5	147.6	147.7
Finished consumer goods less food and energy	147.7	151.7	151.2	151.0	151.0	150.9	150.7	151.7	153.6	153.4	153.4	152.8	153.6	153.6	153.7
Consumer nondurable goods less food and energy	159.1	166.3	165.2	165.2	165.7	165.9	165.7	167.9	168.1	168.2	168.2	167.3	169.0	169.0	169.2
Intermediate materials less foods and feeds	123.4	123.9	122.3	122.9	123.7	124.7	125.4	126.0	125.7	126.0	126.2	126.8	127.7	128.8	128.9
Intermediate foods and feeds	116.2	111.1	109.0	109.8	110.2	109.1	110.9	111.8	112.4	111.6	109.7	109.3	110.3	110.8	111.8
Intermediate energy goods	80.8	84.6	80.3	82.2	84.6	87.2	89.6	92.1	89.0	89.9	90.3	91.2	94.5	97.8	96.0
Intermediate goods less energy	132.4	131.7	130.7	131.1	131.5	131.9	132.3	132.5	132.9	133.0	133.0	133.5	133.8	134.4	134.9
Intermediate materials less foods and energy	133.5	133.1	132.1	132.5	132.9	133.4	133.7	133.9	134.2	134.4	134.6	135.1	135.4	136.0	136.5
Crude energy materials	68.6	78.5	68.1	77.1	77.1	80.4	87.3	95.4	88.7	98.9	87.9	92.0	102.2	103.4	96.3
Crude materials less energy	113.6	107.9	103.9	107.6	107.7	105.8	109.4	110.0	109.8	110.5	109.5	110.2	111.4	114.1	115.2
Crude nonfood materials less energy	142.1	135.2	129.1	131.4	132.2	134.2	136.8	139.1	141.7	142.6	146.0	149.8	151.0	151.1	149.0

32. Producer Price Indexes for the net output of major industry groups

[December 1984 = 100, unless otherwise indicated]

SIC	Industry	Annual average	1999									2000			
		1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
--	Total mining industries	70.8	78.0	68.9	76.5	76.3	78.7	84.7	91.5	87.7	95.1	86.7	89.5	97.3	100.1	94.9
10	Metal mining	73.2	70.3	69.8	69.1	67.3	68.5	69.3	70.4	76.3	73.4	72.6	73.9	75.5	73.6	73.4
12	Coal mining (12/85 = 100)	89.5	87.3	88.9	87.8	88.0	86.9	86.9	86.9	86.0	86.1	86.4	85.3	84.6	85.8	84.4
13	Oil and gas extraction (12/85 = 100)	66.3	78.6	65.1	76.3	76.2	79.6	87.6	96.9	91.2	101.6	90.4	94.2	104.5	108.6	101.8
14	Mining and quarrying of nonmetallic minerals, except fuels	132.2	134.0	133.8	133.8	134.2	134.2	134.2	134.3	134.4	134.4	134.4	135.0	135.0	135.2	136.0
--	Total manufacturing industries	126.2	128.3	127.4	127.7	127.8	128.3	129.0	129.7	130.2	130.3	130.5	130.8	132.0	133.0	132.6
20	Food and kindred products	126.3	126.3	124.3	125.3	126.0	125.9	126.8	127.5	127.8	127.1	126.7	126.7	127.3	127.5	128.2
21	Tobacco manufactures	243.1	325.7	316.0	316.1	316.2	316.1	316.5	344.5	344.4	344.5	345.0	329.4	348.6	347.3	347.2
22	Textile mill products	118.6	116.3	116.4	116.4	116.3	115.9	116.0	115.9	116.1	115.9	116.1	116.2	116.3	116.0	116.1
23	Apparel and other finished products made from fabrics and similar materials	124.8	125.3	125.3	125.3	125.1	125.1	125.5	125.6	125.6	125.4	125.3	125.2	125.3	125.3	125.6
24	Lumber and wood products, except furniture	157.0	161.8	160.2	161.9	165.2	168.5	166.9	163.1	160.0	159.6	160.6	161.4	161.9	162.0	161.8
25	Furniture and fixtures	139.7	141.3	140.7	140.9	141.1	141.3	141.6	141.8	142.0	142.0	142.1	142.4	142.4	142.8	143.0
26	Paper and allied products	136.2	136.4	134.2	134.8	135.8	136.3	137.3	138.7	139.9	140.2	140.4	141.0	141.5	143.5	145.8
27	Printing, publishing, and allied industries	174.0	177.6	177.1	177.2	177.2	177.4	177.7	178.1	178.6	179.1	179.2	180.4	180.6	181.2	181.3
28	Chemicals and allied products	148.7	149.7	147.7	148.2	149.0	149.9	150.0	151.0	152.8	153.0	152.9	153.6	154.1	154.8	155.5
29	Petroleum refining and related products	66.3	76.8	73.7	75.4	74.2	79.6	85.3	90.2	87.0	89.5	91.5	94.0	103.7	110.2	107.8
30	Rubber and miscellaneous plastics products	122.1	122.2	121.7	121.6	121.9	122.1	122.5	122.6	122.9	123.3	123.4	123.5	123.7	124.0	124.1
31	Leather and leather products	137.1	136.5	136.1	136.0	136.5	136.7	136.7	136.9	137.0	137.0	137.0	137.5	137.5	137.5	137.4
32	Stone, clay, glass, and concrete products	129.3	130.6	130.1	130.5	130.7	130.7	130.7	133.0	133.6	133.7	133.5	134.4	134.5	134.7	134.7
33	Primary metal industries	120.9	115.8	114.7	114.9	115.0	115.4	115.7	116.4	117.1	117.1	117.4	118.6	119.1	119.8	120.5
34	Fabricated metal products, except machinery and transportation transportation equipment	128.7	129.1	128.9	128.9	129.1	129.1	129.1	129.2	129.4	129.6	129.7	129.9	130.1	130.4	130.4
35	Machinery, except electrical	117.7	117.3	117.5	117.5	117.5	117.3	117.2	117.1	117.1	117.1	117.0	117.1	117.3	117.4	117.4
36	Electrical and electronic machinery, equipment, and supplies	110.4	109.5	109.7	109.7	109.5	109.5	109.5	109.2	109.1	109.1	108.9	108.7	108.8	108.5	108.7
37	Transportation	133.6	134.5	134.5	134.1	133.6	133.0	132.9	132.6	136.7	136.2	136.2	136.3	135.9	136.1	136.3
38	Measuring and controlling instruments; photographic, medical, and optical goods; watches and clocks	126.0	125.7	126.4	125.9	125.3	125.1	125.0	124.9	125.2	125.3	125.6	126.0	126.0	125.9	126.1
39	Miscellaneous manufacturing industries (12/85 = 100)	129.7	130.3	130.4	130.5	130.5	130.5	130.1	130.0	130.4	130.2	130.5	130.7	131.0	130.9	131.1
	Service industries:															
42	Motor freight transportation and warehousing (06/93 = 100)	111.6	114.8	114.2	114.3	114.6	114.8	115.1	115.5	115.5	115.5	115.8	116.5	116.6	116.1	116.0
43	U.S. Postal Service (06/89 = 100)	132.3	135.3	135.4	135.4	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2
44	Water transportation (12/92 = 100)	105.6	113.0	106.0	114.4	116.8	117.4	117.2	117.3	116.7	116.7	116.1	116.4	117.5	117.2	118.5
45	Transportation by air (12/92 = 100)	124.5	130.8	129.6	130.2	130.9	131.4	131.6	131.6	133.1	133.4	134.2	141.2	136.8	138.4	142.5
46	Pipelines, except natural gas (12/92 = 100)	99.2	98.3	98.4	98.5	98.6	98.2	98.2	98.3	98.3	98.2	98.2	102.1	101.9	101.9	101.9

33. Annual data: Producer Price Indexes, by stage of processing

[1982 = 100]

Index	1991	1992	1993	1994	1995	1996	1997	1998	1999
Finished goods									
Total	121.7	123.2	124.7	125.5	127.9	131.3	131.8	130.7	133.0
Foods	124.1	123.3	125.7	126.8	129.0	133.6	134.5	134.3	135.1
Energy	78.1	77.8	78.0	77.0	78.1	83.2	83.4	75.1	78.8
Other	131.1	134.2	135.8	137.1	140.0	142.0	142.4	143.7	146.1
Intermediate materials, supplies, and components									
Total	114.4	114.7	116.2	118.5	124.9	125.7	125.6	123.0	123.2
Foods	115.3	113.9	115.6	118.5	119.5	125.3	123.2	123.2	120.8
Energy	85.1	84.3	84.6	83.0	84.1	89.8	89.0	80.8	84.3
Other	121.4	122.0	123.8	127.1	135.2	134.0	134.2	133.5	133.1
Crude materials for further processing									
Total	101.2	100.4	102.4	101.8	102.7	113.8	111.1	96.8	98.2
Foods	105.5	105.1	108.4	106.5	105.8	121.5	112.2	103.9	98.7
Energy	80.4	78.8	76.7	72.1	69.4	85.0	87.3	68.6	78.5
Other	97.5	94.2	94.1	97.0	105.6	105.7	103.5	84.5	91.1

34. U.S. export price indexes by Standard International Trade Classification

[1995 = 100, unless otherwise indicated]

SITC Rev. 3	Industry	1999									2000			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
0	**Food and live animals**	88.2	89.2	89.2	87.4	87.6	86.6	86.4	86.3	85.6	86.3	86.9	87.1	87.8
01	Meat and meat preparations	88.9	89.9	91.5	94.2	97.3	97.5	97.4	97.7	100.9	100.1	98.0	99.4	102.1
04	Cereals and cereal preparations	76.7	76.2	75.9	70.9	73.3	72.7	69.5	70.1	68.5	71.0	74.1	74.4	74.0
05	Vegetables, fruit, and nuts, prepared fresh or dry	94.8	97.6	98.5	99.8	97.8	94.3	96.6	94.3	91.2	90.9	89.0	88.6	90.6
2	**Crude materials, inedible, except fuels**	74.1	74.6	74.9	74.7	76.5	77.7	78.1	77.8	78.9	80.0	82.2	83.2	84.2
21	Hides, skins, and furskins, raw	78.9	79.0	79.0	80.3	83.4	86.5	88.6	87.8	90.5	91.1	89.5	87.7	85.5
22	Oilseeds and oleaginous fruits	80.4	79.5	79.2	72.8	80.1	85.0	82.3	78.1	79.6	80.5	84.8	86.0	88.3
24	Cork and wood	81.8	81.7	82.0	82.9	83.0	82.8	83.5	83.8	85.0	86.4	86.5	87.2	87.4
25	Pulp and waste paper	61.9	62.9	66.0	71.5	73.5	75.2	77.1	78.7	80.9	84.3	88.3	90.0	93.8
26	Textile fibers and their waste	69.8	70.1	68.6	65.2	65.1	64.4	64.5	63.4	62.5	61.2	65.7	68.6	68.9
27	Crude fertilizers and crude minerals	93.5	93.5	93.5	93.6	93.0	93.3	93.1	93.8	94.1	94.3	94.0	93.5	93.0
28	Metalliferous ores and metal scrap	68.6	70.6	70.7	72.3	73.0	73.5	75.1	77.3	78.4	80.0	80.7	80.9	80.4
3	**Mineral fuels, lubricants, and related products**	99.6	100.7	102.0	109.0	113.8	115.3	119.5	121.4	126.6	129.5	138.5	152.1	137.2
32	Coal, coke, and briquettes	98.3	98.4	98.3	98.2	98.3	97.6	97.6	97.6	97.5	96.1	96.1	96.1	94.7
33	Petroleum, petroleum products, and related materials	103.3	105.3	107.6	119.8	126.4	128.6	131.3	133.4	140.1	143.6	159.6	179.2	152.0
4	**Animal and vegetable oils, fats, and waxes**	82.8	81.9	76.6	76.8	77.1	78.8	81.9	79.0	78.0	75.8	74.3	70.8	71.6
5	**Chemicals and related products, n.e.s.**	90.4	90.7	91.2	91.6	91.8	92.3	93.3	93.3	93.6	93.8	94.2	94.4	95.6
54	Medicinal and pharmaceutical products	100.6	100.6	100.6	100.3	99.9	99.8	99.8	99.8	100.3	100.2	100.4	100.4	100.0
55	Essential oils; polishing and cleaning preparations	101.4	101.8	101.9	101.9	101.8	102.1	102.3	103.5	103.4	103.4	103.3	103.0	103.2
57	Plastics in primary forms (12/92 = 100)	85.5	86.6	88.4	89.7	90.6	92.1	94.4	94.9	95.0	94.8	94.8	95.6	97.5
58	Plastics in nonprimary forms (12/92 = 100)	96.1	96.3	97.2	97.4	97.4	97.6	97.9	97.8	98.0	97.8	98.6	100.5	100.6
59	Chemical materials and products, n.e.s.	99.9	99.5	99.6	99.4	99.3	99.2	98.9	98.8	99.1	99.2	99.9	99.6	99.3
6	**Manufactured goods classified chiefly by materials**	96.5	96.6	96.8	97.1	97.3	97.5	97.8	98.0	98.3	98.3	99.0	99.7	99.9
62	Rubber manufactures, n.e.s.	105.9	105.9	105.5	105.6	105.8	106.9	108.2	108.2	108.5	104.7	103.7	103.6	103.7
64	Paper, paperboard, and articles of paper, pulp, and paperboard	81.9	82.9	83.4	84.4	85.4	86.3	87.2	87.6	87.2	87.6	87.8	88.4	89.1
66	Nonmetallic mineral manufactures, n.e.s.	106.6	106.3	106.3	106.3	106.3	106.1	106.0	106.0	105.8	105.8	106.0	106.2	106.4
68	Nonferrous metals	84.3	84.7	85.0	85.3	87.0	88.0	90.2	90.7	92.3	93.4	98.8	101.9	100.3
7	**Machinery and transport equipment**	98.0	97.8	97.6	97.3	97.3	97.2	97.4	97.5	97.2	97.4	97.3	97.3	97.4
71	Power generating machinery and equipment	109.8	109.5	109.6	110.1	110.1	110.1	110.2	111.0	111.0	111.8	111.8	111.8	111.9
72	Machinery specialized for particular industries	105.9	105.9	106.1	105.8	105.8	105.9	106.0	106.1	104.7	106.2	106.3	106.1	106.2
74	General industrial machines and parts, n.e.s., and machine parts	107.3	107.2	107.3	107.5	107.5	107.6	107.7	107.7	107.9	107.5	107.6	108.0	108.2
75	Computer equipment and office machines	72.7	72.2	71.6	71.0	71.0	70.2	70.5	70.4	70.2	70.1	68.7	68.7	68.5
76	Telecommunications and sound recording and reproducing apparatus and equipment	97.3	97.1	96.9	97.0	96.9	96.9	96.6	96.6	96.7	96.4	97.0	96.8	96.7
77	Electrical machinery and equipment	89.6	89.0	88.6	87.7	87.5	87.6	87.4	87.3	86.7	86.4	86.6	86.3	86.4
78	Road vehicles	102.2	102.3	102.5	102.4	102.3	102.4	103.1	103.1	103.1	103.5	103.6	104.0	103.9
87	**Professional, scientific, and controlling instruments and apparatus**	105.2	105.4	105.2	105.4	105.4	105.4	105.5	105.6	105.3	105.2	105.4	105.7	105.8

35. U.S. import price indexes by Standard International Trade Classification

[1995 = 100, unless otherwise indicated]

SITC Rev. 3	Industry	1999									2000			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
0	**Food and live animals**	94.5	94.9	93.3	92.6	92.0	91.5	91.0	92.4	94.7	93.7	93.6	93.5	94.3
01	Meat and meat preparations	94.5	93.7	94.5	94.3	96.7	99.4	98.4	97.7	98.4	97.8	98.2	99.1	100.2
03	Fish and crustaceans, mollusks, and other aquatic invertebrates	106.0	106.0	104.3	104.2	103.8	103.1	105.0	107.5	106.8	106.8	107.9	109.7	112.7
05	Vegetables, fruit, and nuts, prepared fresh or dry	104.9	108.1	103.2	103.5	102.6	101.6	96.5	97.2	103.6	102.0	102.1	101.2	100.6
07	Coffee, tea, cocoa, spices, and manufactures thereof	69.5	68.4	69.4	64.3	63.2	61.4	62.0	66.0	70.6	67.2	64.7	61.0	61.1
1	**Beverages and tobacco**	110.6	110.4	110.4	110.6	111.2	112.2	111.5	111.5	112.0	111.2	111.4	111.7	111.9
11	Beverages	107.2	107.2	107.2	107.6	107.7	109.1	108.5	108.5	108.7	107.9	108.2	108.5	108.7
2	**Crude materials, inedible, except fuels**	86.1	88.5	90.3	93.1	92.7	91.7	90.8	90.3	92.2	93.6	94.7	94.3	93.8
24	Cork and wood	113.6	118.3	122.3	131.9	128.9	121.7	116.7	114.9	118.7	117.7	117.0	118.6	117.6
25	Pulp and waste paper	57.3	58.1	60.6	61.4	61.1	66.0	63.9	66.8	68.2	70.5	72.0	72.4	75.1
28	Metalliferous ores and metal scrap	89.5	90.9	91.9	91.9	93.8	94.3	98.4	98.0	99.0	101.4	105.7	104.0	101.7
29	Crude animal and vegetable materials, n.e.s.	108.6	107.8	101.7	102.8	105.0	111.1	112.1	106.5	111.9	121.1	124.3	111.9	110.5
3	**Mineral fuels, lubricants, and related products**	86.3	93.1	92.7	105.3	117.1	126.5	128.0	134.7	141.2	145.2	165.7	165.6	147.8
33	Petroleum, petroleum products, and related materials	84.9	91.1	91.3	103.8	115.9	125.7	127.4	132.6	141.4	146.1	167.9	166.8	146.4
34	Gas, natural and manufactured	99.3	112.1	106.5	123.1	134.1	142.2	141.1	161.5	150.2	147.8	161.4	170.4	171.3
5	**Chemicals and related products, n.e.s.**	90.6	90.6	90.6	90.6	90.4	91.3	91.8	92.1	92.0	92.2	92.7	92.8	93.4
52	Inorganic chemicals	86.9	86.8	86.7	86.4	86.2	86.6	87.2	87.7	88.0	88.3	89.0	88.8	89.8
53	Dying, tanning, and coloring materials	92.6	91.7	91.9	90.6	90.5	90.2	90.6	91.4	89.7	88.9	89.3	88.4	87.9
54	Medicinal and pharmaceutical products	96.1	95.6	96.2	96.2	96.3	97.0	97.4	97.8	97.3	98.2	98.2	97.3	97.3
55	Essential oils; polishing and cleaning preparations	93.1	92.7	92.4	91.7	91.8	92.3	91.8	92.3	90.2	89.6	89.6	89.7	89.4
57	Plastics in primary forms (12/92 = 100)	92.5	93.4	93.6	93.7	93.1	93.8	93.8	93.9	94.0	93.7	93.0	93.9	93.9
58	Plastics in nonprimary forms (12/92 = 100)	73.5	74.0	75.6	75.8	76.1	77.9	78.9	79.4	79.7	79.3	79.0	80.4	80.3
59	Chemical materials and products, n.e.s.	98.5	98.0	97.4	98.0	98.1	98.1	98.6	98.4	99.5	100.0	101.6	100.6	100.0
6	**Manufactured goods classified chiefly by materials**	91.7	91.8	92.0	91.9	92.4	92.6	93.3	93.9	93.9	94.5	95.5	97.9	97.6
62	Rubber manufactures, n.e.s.	94.2	94.7	94.3	94.4	94.5	95.0	94.9	94.4	94.4	92.7	92.8	92.3	92.4
64	Paper, paperboard, and articles of paper, pulp, and paperboard	85.1	85.2	83.7	83.6	83.5	83.7	84.4	87.4	86.2	86.6	86.9	87.1	88.8
66	Nonmetallic mineral manufactures, n.e.s.	100.9	100.8	100.9	100.8	100.9	101.1	101.2	101.6	101.2	100.8	101.2	100.8	100.9
68	Nonferrous metals	85.7	85.8	87.7	87.6	89.9	91.1	94.8	95.4	95.6	98.9	104.4	114.8	110.1
69	Manufactures of metals, n.e.s.	95.9	96.4	96.1	95.8	95.6	95.8	95.6	95.9	95.9	95.7	96.1	96.1	96.3
7	**Machinery and transport equipment**	90.6	90.6	90.3	89.9	89.9	89.9	89.9	89.8	89.7	89.8	89.8	89.7	89.6
72	Machinery specialized for particular industries	98.1	97.8	97.6	97.3	97.2	97.6	97.8	98.2	97.8	97.7	97.9	97.3	97.1
74	General industrial machines and parts, n.e.s., and machine parts	97.9	97.7	97.6	97.3	97.3	97.4	97.3	97.3	97.0	97.0	96.7	97.0	96.9
75	Computer equipment and office machines	63.7	63.6	63.1	62.0	61.8	61.6	61.4	61.4	61.7	61.5	61.4	61.0	60.5
76	Telecommunications and sound recording and reproducing apparatus and equipment	87.9	87.8	87.6	87.3	87.0	87.1	86.0	85.9	85.6	85.2	85.2	84.9	84.6
77	Electrical machinery and equipment	83.5	83.3	82.7	81.9	82.1	82.5	82.6	82.2	82.1	82.4	82.2	82.2	82.5
78	Road vehicles	102.0	102.3	102.3	102.4	102.4	102.2	102.4	102.4	102.3	102.4	102.6	102.7	102.7
85	Footwear	101.0	100.5	100.7	100.7	100.6	100.8	100.8	100.8	100.8	100.8	100.9	100.7	100.5
88	Photographic apparatus, equipment, and supplies and optical goods, n.e.s.	91.4	91.4	91.3	91.2	91.1	91.4	92.2	92.5	92.5	92.2	91.7	91.8	91.7

– Data not available.

36. U.S. export price indexes by end-use category

[1995 = 100]

Category	1999									2000			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
ALL COMMODITIES	94.4	94.5	94.5	94.4	94.7	94.8	95.1	95.3	95.2	95.4	95.8	96.3	96.2
Foods, feeds, and beverages	88.2	89.0	88.9	86.7	87.9	87.6	87.4	86.7	86.0	86.3	87.2	87.4	88.1
Agricultural foods, feeds, and beverages	86.4	86.8	86.8	85.0	86.9	86.7	86.4	85.6	84.9	85.4	86.0	86.2	87.0
Nonagricultural (fish, beverages) food products	108.5	114.2	113.1	106.8	99.5	98.2	99.7	99.2	99.5	98.3	100.9	101.4	100.6
Industrial supplies and materials	86.8	87.2	87.5	88.3	89.0	89.5	90.4	91.1	91.7	92.1	93.6	95.2	94.5
Agricultural industrial supplies and materials	79.6	79.5	78.4	76.2	76.3	76.6	77.5	76.6	76.7	75.2	76.9	77.7	78.0
Fuels and lubricants	97.8	98.4	99.8	106.1	110.5	111.8	114.4	115.9	120.4	122.7	131.3	143.6	127.5
Nonagricultural supplies and materials, excluding fuel and building materials	85.3	85.7	86.0	86.6	87.0	87.5	88.3	89.1	89.3	89.7	90.4	91.0	91.8
Selected building materials	87.5	87.5	87.8	88.0	88.4	87.4	87.8	87.7	88.6	89.2	89.5	90.1	90.4
Capital goods	97.0	96.7	96.5	96.2	96.2	96.1	96.2	96.3	96.0	96.1	96.0	96.0	96.1
Electric and electrical generating equipment	99.1	98.9	99.0	98.2	98.0	98.3	98.3	98.4	98.5	98.3	98.8	98.7	98.7
Nonelectrical machinery	93.5	93.2	92.9	92.6	92.6	92.4	92.4	92.5	92.1	92.1	91.9	91.9	91.9
Automotive vehicles, parts, and engines	102.9	103.0	103.2	103.2	103.2	103.3	104.0	103.9	103.8	103.9	103.8	104.2	104.2
Consumer goods, excluding automotive	101.8	101.8	102.0	101.9	102.0	101.9	102.2	102.2	102.4	102.4	102.5	102.4	102.3
Nondurables, manufactured	102.0	102.0	102.1	102.0	102.0	102.1	102.4	102.5	102.9	102.8	102.6	102.5	102.3
Durables, manufactured	100.4	100.3	100.5	100.6	100.8	100.7	100.8	100.9	100.8	101.0	101.4	101.0	101.2
Agricultural commodities	84.9	85.2	85.0	83.1	84.7	84.6	84.5	83.7	83.1	83.2	84.0	84.4	85.1
Nonagricultural commodities	95.5	95.5	95.6	95.7	95.8	95.9	96.3	96.6	96.6	96.8	97.2	97.6	97.5

37. U.S. import price indexes by end-use category

[1995 = 100]

Category	1999									2000			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
ALL COMMODITIES	91.9	92.5	92.4	93.3	94.3	95.2	95.4	96.2	96.8	97.2	99.2	99.3	97.8
Foods, feeds, and beverages	94.0	94.8	93.7	92.8	92.5	92.3	91.6	93.0	94.8	93.6	93.3	92.9	93.7
Agricultural foods, feeds, and beverages	89.1	90.3	89.3	88.0	87.7	87.6	86.1	87.2	89.8	88.4	87.6	86.5	86.7
Nonagricultural (fish, beverages) food products	106.5	106.5	105.2	105.4	105.0	104.9	106.3	108.2	107.7	107.2	108.1	109.7	112.1
Industrial supplies and materials	89.0	91.5	91.8	96.1	99.9	103.1	104.3	106.9	109.4	111.0	118.6	119.8	114.1
Fuels and lubricants	86.7	93.4	93.2	105.4	116.7	126.0	128.1	134.3	140.7	144.2	164.7	163.9	147.0
Petroleum and petroleum products	84.6	90.8	91.2	103.5	115.6	125.2	127.3	132.5	140.9	145.8	167.5	166.4	146.7
Paper and paper base stocks	77.5	77.7	77.0	77.0	76.9	78.4	78.5	81.8	81.2	82.1	82.8	83.1	85.6
Materials associated with nondurable supplies and materials	87.4	87.3	87.4	87.0	86.9	87.7	88.3	88.8	89.1	89.2	89.7	90.4	91.2
Selected building materials	108.3	110.5	114.2	120.6	118.9	113.4	110.0	108.3	111.1	110.5	110.1	112.1	111.9
Unfinished metals associated with durable goods	86.7	87.3	88.3	87.7	89.0	89.7	93.0	94.4	94.8	97.4	100.3	106.9	104.2
Nonmetals associated with durable goods	87.3	87.3	87.0	86.7	86.7	87.3	87.5	87.5	87.4	87.2	88.0	87.6	87.8
Capital goods	83.3	83.0	82.6	81.9	81.9	82.0	81.9	81.8	81.7	81.7	81.6	81.3	81.2
Electric and electrical generating equipment	92.5	92.3	91.5	91.1	91.2	91.6	91.7	91.8	91.1	91.8	91.8	92.1	92.2
Nonelectrical machinery	80.2	79.9	79.5	78.7	78.7	78.8	78.6	78.5	78.4	78.3	78.2	77.9	77.7
Automotive vehicles, parts, and engines	101.5	101.8	101.7	101.8	101.9	101.9	102.0	102.0	102.0	102.1	102.2	102.2	102.3
Consumer goods, excluding automotive	97.7	97.6	97.5	97.4	97.4	97.7	97.5	97.6	97.5	97.5	97.4	97.1	97.1
Nondurables, manufactured	100.8	100.5	100.4	100.2	100.3	100.8	100.5	100.7	100.6	100.4	100.4	100.3	100.2
Durables, manufactured	94.4	94.5	94.4	94.3	94.1	94.2	94.1	94.2	94.1	94.1	93.8	93.5	93.4
Nonmanufactured consumer goods	98.9	98.8	98.0	98.3	99.1	99.9	100.0	98.8	99.8	101.5	102.0	100.1	100.4

38. U.S. international price indexes for selected categories of services

[1990 = 100, unless otherwise indicated]

Category	1998			1999				2000
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.
Air freight (inbound) (9/90 = 100)	83.4	81.8	87.4	88.0	86.2	87.9	90.7	88.9
Air freight (outbound) (9/92 = 100)	96.0	95.8	95.2	92.7	92.8	92.7	91.7	91.7
Air passenger fares (U.S. carriers)	107.8	107.3	103.1	104.5	112.3	114.2	106.8	107.3
Air passenger fares (foreign carriers)	102.4	104.0	101.1	98.9	106.3	108.6	102.2	102.6
Ocean liner freight (inbound)	103.2	105.0	104.2	102.6	133.7	148.0	139.4	136.3

39. Indexes of productivity, hourly compensation, and unit costs, quarterly data seasonally adjusted

[1992 = 100]

Item	Quarterly indexes												
	1997				1998				1999				2000
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I
Business													
Output per hour of all persons	106.2	107.0	107.9	108.3	109.6	109.8	110.7	111.9	112.7	112.9	114.2	116.1	116.6
Compensation per hour	112.5	113.2	114.6	116.5	117.9	119.5	121.3	122.8	124.3	125.8	127.2	128.2	129.4
Real compensation per hour	100.2	100.6	101.4	102.5	103.6	104.6	105.8	106.7	107.5	108.0	108.5	108.6	108.6
Unit labor costs	105.9	105.8	106.1	107.6	107.6	108.9	109.6	109.7	110.3	111.4	111.4	110.5	111.0
Unit nonlabor payments	114.6	116.0	116.2	114.3	114.4	112.7	112.2	112.1	112.2	111.0	111.6	114.4	115.2
Implicit price deflator	109.1	109.6	109.8	110.0	110.1	110.3	110.5	110.6	111.0	111.3	111.5	111.9	112.5
Nonfarm business													
Output per hour of all persons	106.0	106.8	107.7	108.0	109.2	109.5	110.4	111.5	112.2	112.4	113.7	115.6	116.3
Compensation per hour	112.1	112.9	114.1	115.9	117.3	118.9	120.7	122.1	123.3	124.8	126.2	127.4	128.7
Real compensation per hour	99.9	100.3	100.9	102.0	103.1	104.1	105.3	106.1	106.7	107.1	107.7	107.9	108.0
Unit labor costs	105.8	105.7	106.0	107.3	107.4	108.6	109.4	109.5	109.9	111.1	111.0	110.2	110.6
Unit nonlabor payments	115.0	116.7	117.1	115.4	115.9	114.2	113.2	112.7	113.2	112.3	113.0	115.8	116.9
Implicit price deflator	109.1	109.7	110.0	110.3	110.5	110.6	110.8	110.7	111.1	111.5	111.7	112.2	112.9
Nonfinancial corporations													
Output per hour of all employees	109.4	110.0	111.7	112.4	113.4	114.5	116.2	117.1	118.3	119.3	120.4	122.0	123.0
Compensation per hour	111.2	112.0	113.3	115.1	116.4	118.1	119.9	121.3	122.7	124.2	125.6	126.7	127.7
Real compensation per hour	99.1	99.5	100.2	101.3	102.3	103.4	104.6	105.4	106.2	106.6	107.1	107.3	107.2
Total unit costs	101.3	101.4	101.0	101.5	101.5	101.9	101.9	102.5	102.3	102.7	103.0	102.9	102.9
Unit labor costs	101.7	101.8	101.4	102.4	102.6	103.1	103.2	103.6	103.8	104.1	104.2	103.9	103.8
Unit nonlabor costs	100.1	100.3	99.7	99.1	98.6	98.7	98.4	99.4	98.4	98.9	99.8	100.5	100.5
Unit profits	156.3	156.9	161.8	156.1	154.1	150.8	153.8	147.1	151.3	150.2	146.5	150.2	155.3
Unit nonlabor payments	114.4	114.7	115.6	113.6	112.7	112.0	112.5	111.6	111.9	112.0	111.7	113.2	114.5
Implicit price deflator	105.9	106.1	106.1	106.1	106.0	106.0	106.3	106.3	106.5	106.7	106.7	107.0	107.4
Manufacturing													
Output per hour of all persons	116.8	118.3	120.9	122.2	123.2	124.5	127.0	128.9	131.1	132.8	134.3	137.7	140.2
Compensation per hour	111.7	112.5	113.6	115.7	117.4	119.2	121.3	122.1	123.4	125.1	126.9	128.3	129.4
Real compensation per hour	99.5	100.0	100.5	101.8	103.2	104.3	105.8	106.1	106.8	107.5	108.3	108.7	108.6
Unit labor costs	95.7	95.1	94.0	94.6	95.3	95.7	95.5	94.8	94.1	94.2	94.5	93.1	92.3

– Data not available.

40. Annual indexes of multifactor productivity and related measures, selected years

[1992 = 100]

Item	1960	1970	1980	1989	1990	1991	1993	1994	1995	1996	1997
Private business											
Productivity:											
Output per hour of all persons	50.8	70.1	83.8	95.5	96.1	96.7	100.1	100.6	101.0	103.7	105.2
Output per unit of capital services	117.3	117.1	107.3	103.8	102.1	98.6	100.7	102.3	101.9	102.3	102.6
Multifactor productivity	70.7	86.5	95.3	100.0	99.6	98.1	100.1	100.6	100.7	102.4	103.1
Output	34.0	51.6	72.6	97.8	98.6	96.9	102.7	107.0	110.0	114.7	120.1
Inputs:											
Labor input	66.9	73.7	86.6	102.4	102.6	100.2	102.7	106.4	108.9	110.6	114.1
Capital services	29.0	44.1	67.7	94.2	96.5	98.3	102.0	104.6	108.0	112.2	117.1
Combined units of labor and capital input	48.1	59.7	76.2	97.8	99.0	98.7	102.6	106.3	109.3	112.1	116.5
Capital per hour of all persons	43.3	59.9	78.1	92.0	94.1	98.1	99.4	98.3	99.2	101.4	102.6
Private nonfarm business											
Productivity:											
Output per hour of all persons	54.3	72.2	85.6	95.9	96.3	96.9	100.1	100.6	101.2	103.7	104.9
Output per unit of capital services	126.1	124.1	111.4	104.6	102.6	98.8	100.8	102.1	101.8	102.1	102.1
Multifactor productivity	74.9	89.4	97.6	100.5	99.8	98.4	100.1	100.5	100.8	102.3	102.7
Output	33.7	51.8	73.1	98.1	98.8	97.0	103.0	107.1	110.4	115.0	120.2
Inputs:											
Labor input	62.1	71.7	85.4	102.4	102.6	100.1	102.9	106.5	109.0	110.9	114.6
Capital services	26.7	41.8	65.6	93.9	96.3	98.2	102.2	104.8	108.4	112.6	117.7
Combined units of labor and capital input	45.0	58.0	74.9	97.7	99.0	98.6	102.9	106.5	109.5	112.4	117.0
Capital per hour of all persons	43.0	58.2	76.8	91.7	93.8	98.1	99.3	98.5	99.4	101.6	102.8
Manufacturing											
Productivity:											
Output per hour of all persons	42.1	54.5	70.4	90.7	93.0	95.1	102.2	105.3	109.4	113.8	–
Output per unit of capital services	125.6	116.3	101.5	103.5	101.3	97.3	101.8	105.2	106.8	107.0	–
Multifactor productivity	72.9	84.2	87.3	100.4	99.8	98.6	101.2	104.4	108.4	110.7	–
Output	38.7	56.8	75.7	97.1	97.5	95.5	103.6	109.1	113.8	118.0	–
Inputs:											
Hours of all persons	92.0	104.2	107.5	107.1	104.8	100.4	101.4	103.6	104.0	103.7	–
Capital services	30.9	48.8	74.6	93.8	96.3	98.2	101.7	103.6	106.6	110.3	–
Energy	51.5	85.4	92.5	96.8	99.9	100.1	103.7	107.3	109.5	107.0	–
Nonenergy materials	39.1	46.0	74.5	88.3	91.3	93.1	103.0	104.4	101.4	105.4	–
Purchased business services	27.3	47.4	71.9	88.9	91.8	91.9	104.3	107.8	111.0	111.6	–
Combined units of all factor inputs	53.1	67.4	86.7	96.7	97.7	96.9	102.3	104.5	105.0	106.6	–

– Data not available.

41. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years

[1992 = 100]

Item	1960	1970	1980	1989	1990	1991	1993	1994	1995	1996	1997	1998	1999
Business													
Output per hour of all persons	48.0	66.2	79.8	93.3	94.5	95.9	100.1	101.4	102.2	105.2	107.5	110.5	114.0
Compensation per hour	13.6	23.5	54.3	85.7	90.6	94.9	102.4	104.5	106.7	110.1	114.2	120.3	126.3
Real compensation per hour	59.9	79.0	89.7	95.8	96.4	97.4	99.9	99.7	99.1	99.6	101.1	105.1	108.1
Unit labor costs	28.4	35.6	68.1	91.9	95.9	99.0	102.3	103.0	104.4	104.7	106.2	108.8	110.8
Unit nonlabor payments	25.5	32.0	62.1	92.5	94.6	97.4	102.9	106.9	109.8	113.5	115.1	112.7	112.2
Implicit price deflator	27.3	34.3	65.9	92.1	95.4	98.4	102.5	104.4	106.4	107.9	109.5	110.3	111.3
Nonfarm business													
Output per hour of all persons	51.2	68.0	81.3	93.5	94.6	96.1	100.1	101.4	102.4	105.2	107.2	110.2	113.5
Compensation per hour	14.3	23.7	54.7	85.8	90.5	94.9	102.1	104.3	106.5	109.8	113.8	119.7	125.4
Real compensation per hour	62.8	79.7	90.3	95.8	96.3	97.4	99.6	99.5	98.9	99.3	100.7	104.5	107.2
Unit labor costs	27.9	34.9	67.2	91.7	95.7	98.8	102.1	102.9	104.0	104.4	106.1	108.6	110.5
Unit nonlabor payments	24.9	31.7	61.1	91.9	94.2	97.5	103.4	107.4	110.8	113.8	115.9	113.9	113.4
Implicit price deflator	26.8	33.7	65.0	91.8	95.1	98.3	102.6	104.5	106.5	107.8	109.7	110.5	111.5
Nonfinancial corporations													
Output per hour of all employees	52.6	66.3	76.9	93.8	94.9	96.9	101.5	104.3	105.6	108.4	111.7	116.2	–
Compensation per hour	15.6	25.3	56.6	87.0	91.4	95.5	102.1	104.3	106.2	109.0	113.0	119.0	–
Real compensation per hour	68.6	85.1	93.6	97.2	97.2	98.0	99.5	99.5	98.6	98.6	100.0	103.9	–
Total unit costs	28.9	37.4	72.5	93.6	97.1	99.8	100.3	100.0	100.6	100.4	100.6	101.3	–
Unit labor costs	29.7	38.2	73.7	92.7	96.4	98.6	100.6	100.0	100.5	100.5	101.1	102.4	–
Unit nonlabor costs	26.8	35.4	69.4	95.9	99.0	102.9	99.6	100.2	100.9	100.1	99.4	98.4	–
Unit profits	53.2	47.1	72.6	99.0	95.5	94.0	112.5	130.5	137.5	151.5	157.1	150.4	–
Unit nonlabor payments	33.2	38.3	70.2	96.6	98.1	100.7	102.7	107.6	109.8	112.6	113.4	111.0	–
Implicit price deflator	30.9	38.2	72.5	94.1	97.0	99.3	101.3	102.6	103.7	104.7	105.3	105.3	–
Manufacturing													
Output per hour of all persons	42.1	54.4	70.4	90.7	93.0	95.1	102.2	105.3	109.4	113.8	119.6	125.3	133.3
Compensation per hour	14.9	23.7	55.6	86.6	90.8	95.6	102.7	105.6	107.9	109.3	113.4	119.4	125.3
Real compensation per hour	65.4	79.7	91.8	96.8	96.6	98.0	100.2	100.8	100.2	98.9	100.4	104.3	107.2
Unit labor costs	35.3	43.6	78.9	95.5	97.6	100.4	100.5	100.3	98.6	96.0	94.8	95.3	94.0
Unit nonlabor payments	26.7	29.4	79.9	95.2	99.6	98.9	101.1	102.9	107.2	110.2	–	–	–
Implicit price deflator	30.1	34.9	79.5	95.3	98.8	99.5	100.9	101.9	103.9	104.7	–	–	–

– Data not available.

42. Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Mining												
Copper ores	102	109.2	106.6	102.7	100.5	115.2	118.1	126.0	117.2	116.5	118.9	117.5
Gold and silver ores	104	101.5	113.3	122.3	127.4	141.6	159.8	160.8	144.2	138.3	159.0	186.3
Bituminous coal and lignite mining	122	111.7	117.3	118.7	122.4	133.0	141.2	148.1	155.9	168.0	176.6	187.3
Crude petroleum and natural gas	131	101.0	98.0	97.0	97.9	102.1	105.9	112.4	119.4	123.9	125.2	128.7
Crushed and broken stone	142	101.3	98.7	102.2	99.8	105.0	103.6	108.7	105.4	107.2	114.0	111.9
Manufacturing												
Meat products	201	100.1	99.2	97.1	99.6	104.6	104.3	101.2	102.3	97.4	103.2	-
Dairy products	202	108.4	107.7	107.3	108.3	111.4	109.6	111.8	116.4	116.0	119.5	-
Preserved fruits and vegetables	203	97.0	97.8	95.6	99.2	100.5	106.8	107.6	109.1	109.2	111.8	-
Grain mill products	204	101.3	107.6	105.4	104.9	107.8	109.2	108.4	115.4	108.0	118.7	-
Bakery products	205	96.8	96.1	92.7	90.6	93.8	94.4	96.4	97.3	95.6	99.3	-
Sugar and confectionery products	206	99.5	101.8	103.2	102.0	99.8	104.5	106.2	108.3	113.8	117.1	-
Fats and oils	207	108.9	116.4	118.1	120.1	114.1	112.6	111.8	120.3	110.1	120.0	-
Beverages	208	106.0	112.7	117.7	120.5	127.6	127.0	130.8	134.3	135.7	136.3	-
Miscellaneous food and kindred products	209	107.0	99.3	99.3	101.6	101.6	105.3	101.0	103.1	109.2	103.9	-
Cigarettes	211	101.2	109.0	113.2	107.6	111.6	106.5	126.6	142.9	147.2	147.2	-
Broadwoven fabric mills, cotton	221	99.6	99.8	103.1	111.2	110.3	117.8	122.1	134.0	137.3	130.9	-
Broadwoven fabric mills, manmade	222	99.2	106.3	111.3	116.2	126.2	131.7	142.5	145.3	147.6	161.9	-
Narrow fabric mills	224	108.4	92.7	96.5	99.6	112.9	111.4	120.1	118.9	126.3	107.7	-
Knitting mills	225	96.3	108.0	107.5	114.1	119.5	128.1	134.3	138.6	150.5	150.2	-
Textile finishing, except wool	226	90.3	88.7	83.4	79.9	78.6	79.3	81.2	78.5	79.2	94.0	-
Carpets and rugs	227	98.6	97.8	93.2	89.2	96.1	97.1	93.3	95.8	100.2	100.3	-
Yarn and thread mills	228	102.1	104.2	110.2	111.4	119.6	126.6	130.7	137.4	147.4	155.5	-
Miscellaneous textile goods	229	101.6	109.1	109.2	104.6	106.5	110.4	118.5	123.7	123.1	117.9	-
Men's and boys' suits and coats	231	105.1	97.7	93.9	90.2	89.0	97.4	97.7	92.5	97.4	130.3	-
Men's and boys' furnishings	232	100.1	100.1	102.1	108.4	109.1	108.4	111.7	123.4	134.7	152.4	-
Women's and misses' outerwear	233	101.4	96.8	104.1	104.3	109.4	121.8	127.4	135.5	141.6	151.5	-
Women's and children's undergarments	234	105.4	94.6	102.1	113.6	117.4	124.5	138.0	161.3	174.5	196.3	-
Hats, caps, and millinery	235	99.0	96.4	89.2	91.1	93.6	87.2	77.7	84.3	82.2	83.5	-
Miscellaneous apparel and accessories	238	101.3	88.4	90.6	91.8	91.3	94.0	105.5	116.8	120.1	105.2	-
Miscellaneous fabricated textile products	239	96.6	95.7	99.9	100.7	107.5	108.5	107.8	109.2	105.6	117.0	-
Logging	241	93.7	89.4	86.3	86.0	96.2	88.6	87.8	86.0	85.4	71.9	-
Sawmills and planing mills	242	100.7	99.6	99.8	102.6	108.1	101.9	103.3	110.2	115.6	117.5	-
Millwork, plywood, and structural members	243	98.8	97.1	98.0	98.0	99.9	97.0	94.5	92.7	92.4	89.9	-
Wood containers	244	103.1	108.8	111.2	113.1	109.4	100.1	100.9	106.1	106.7	106.6	-
Wood buildings and mobile homes	245	97.8	98.8	103.1	103.0	103.1	103.8	98.3	97.0	96.7	101.1	-
Miscellaneous wood products	249	95.9	102.4	107.7	110.5	114.2	115.3	111.8	115.4	114.4	123.1	-
Household furniture	251	99.4	102.0	104.5	107.1	110.5	110.6	112.5	116.9	121.6	121.8	-
Office furniture	252	94.3	97.5	95.0	94.1	102.5	103.2	100.5	101.1	106.4	117.9	-
Public building and related furniture	253	109.6	113.7	119.8	120.2	140.6	161.0	157.4	173.3	181.5	186.5	-
Partitions and fixtures	254	95.7	92.4	95.6	93.0	102.7	107.4	98.9	101.2	97.5	121.4	-
Miscellaneous furniture and fixtures	259	103.6	101.9	103.5	102.1	99.5	103.6	104.7	110.0	113.2	102.2	-
Pulp mills	261	99.6	107.4	116.7	128.3	137.3	122.5	128.9	131.9	132.6	104.4	-
Paper mills	262	103.9	103.6	102.3	99.2	103.3	102.4	110.2	118.6	111.6	107.0	-
Paperboard mills	263	105.5	101.9	100.6	101.4	104.4	108.4	114.9	119.5	118.0	124.2	-
Paperboard containers and boxes	265	99.7	101.5	101.3	103.4	105.2	107.9	108.4	105.1	106.3	110.1	-
Miscellaneous converted paper products	267	101.1	101.6	101.4	105.3	105.5	107.9	110.6	113.3	113.6	121.7	-
Newspapers	271	96.9	95.2	90.6	85.8	81.5	79.4	79.9	79.0	77.4	79.0	-
Periodicals	272	97.9	98.3	93.9	89.5	92.9	89.5	81.9	87.8	89.1	100.1	-
Books	273	99.1	94.1	96.6	100.8	97.7	103.5	103.0	101.6	99.3	102.2	-
Miscellaneous publishing	274	96.7	89.0	92.2	95.9	105.8	104.5	97.5	94.8	93.6	114.5	-
Commercial printing	275	100.0	101.1	102.5	102.0	108.0	106.9	106.5	107.2	108.3	109.2	-
Manifold business forms	276	98.7	89.7	93.0	89.1	94.5	91.1	82.0	76.9	75.2	78.9	-
Greeting cards	277	100.1	109.1	100.6	92.7	96.7	91.4	89.0	92.5	90.8	92.2	-
Blankbooks and bookbinding	278	95.6	94.2	99.4	96.1	103.6	98.7	105.4	108.7	114.5	115.3	-
Printing trade services	279	99.9	94.3	99.3	100.6	112.0	115.3	111.0	116.7	126.2	124.2	-
Industrial inorganic chemicals	281	105.7	104.3	106.8	109.7	109.7	105.6	102.3	109.3	110.1	116.1	-
Plastics materials and synthetics	282	98.8	99.7	100.9	100.0	107.5	112.0	125.3	128.3	125.3	133.8	-
Drugs	283	101.0	102.8	103.8	104.5	99.5	99.9	104.9	108.7	112.1	112.6	-
Soaps, cleaners, and toilet goods	284	102.0	100.6	103.8	105.3	104.4	108.7	111.2	118.6	120.9	130.4	-
Paints and allied products	285	101.4	103.3	106.3	104.3	102.9	108.8	116.7	118.0	125.6	127.2	-

See footnotes at end of table.

42. Continued--Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Industrial organic chemicals	286	109.9	110.4	101.4	95.8	94.6	92.2	99.9	98.6	99.0	112.9	-
Agricultural chemicals	287	103.7	104.3	104.7	99.5	99.5	103.8	105.0	108.5	110.0	120.4	-
Miscellaneous chemical products	289	95.4	95.2	97.3	96.1	101.8	107.1	105.7	107.8	110.1	120.2	-
Petroleum refining	291	105.3	109.6	109.2	106.6	111.3	120.1	123.8	132.3	142.0	149.2	-
Asphalt paving and roofing materials	295	98.3	95.3	98.0	94.1	100.4	108.0	104.9	111.2	113.1	120.8	-
Miscellaneous petroleum and coal products	299	98.4	101.9	94.8	90.6	101.5	104.2	96.3	87.4	87.1	97.2	-
Tires and inner tubes	301	102.9	103.8	103.0	102.4	107.8	116.5	124.1	131.1	138.8	148.5	-
Hose and belting and gaskets and packing	305	103.7	96.3	96.1	92.4	97.8	99.7	102.7	104.6	107.4	112.5	-
Fabricated rubber products, n.e.c.	306	104.2	105.5	109.0	109.9	115.2	123.1	119.1	121.5	121.0	125.4	-
Miscellaneous plastics products, n.e.c.	308	100.5	101.8	105.7	108.2	114.4	116.7	120.7	120.9	124.7	130.1	-
Footwear, except rubber	314	101.3	101.1	101.1	94.4	104.2	105.2	113.0	117.1	126.1	129.5	-
Luggage	316	93.7	104.8	106.2	100.3	90.7	89.5	92.3	90.5	110.6	136.4	-
Handbags and personal leather goods	317	98.5	93.1	96.5	98.7	111.2	97.8	86.8	81.8	83.2	109.7	-
Flat glass	321	91.9	90.7	84.5	83.6	92.7	97.7	97.6	99.6	101.5	107.6	-
Glass and glassware, pressed or blown	322	100.6	100.2	104.8	102.3	108.9	108.7	112.9	115.7	121.4	128.2	-
Products of purchased glass	323	95.9	90.1	92.6	97.7	101.5	106.2	105.9	106.1	122.0	125.3	-
Cement, hydraulic	324	103.2	110.2	112.4	108.3	115.1	119.9	125.6	124.3	128.7	133.1	-
Structural clay products	325	98.8	103.1	109.6	109.8	111.4	106.8	114.0	112.6	119.6	116.1	-
Pottery and related products	326	99.6	97.1	98.6	95.8	99.5	100.3	108.4	109.3	119.3	116.1	-
Concrete, gypsum, and plaster products	327	100.8	102.4	102.3	101.2	102.5	104.6	101.5	104.5	107.3	109.2	-
Miscellaneous nonmetallic mineral products	329	103.0	95.5	95.4	94.0	104.3	104.5	106.3	107.8	110.4	112.7	-
Blast furnace and basic steel products	331	112.6	108.0	109.6	107.8	117.1	133.5	142.4	142.7	155.1	160.9	-
Iron and steel foundries	332	104.0	105.4	106.1	104.5	107.2	112.1	113.0	112.7	116.2	121.7	-
Primary nonferrous metals	333	107.8	106.1	102.3	110.7	101.9	107.9	105.3	111.0	110.8	116.0	-
Nonferrous rolling and drawing	335	95.5	93.6	92.7	91.0	96.0	98.3	101.2	99.2	104.0	112.3	-
Nonferrous foundries (castings)	336	102.6	105.1	104.0	103.6	103.6	108.5	112.1	117.8	122.3	126.4	-
Miscellaneous primary metal products	339	106.6	105.0	113.7	109.1	114.5	111.3	134.5	152.2	149.6	140.9	-
Metal cans and shipping containers	341	106.5	108.5	117.6	122.9	127.8	132.3	140.9	144.2	155.2	160.8	-
Cutlery, handtools, and hardware	342	97.8	101.7	97.3	96.8	100.1	104.0	109.2	111.3	118.2	113.1	-
Plumbing and heating, except electric	343	103.7	101.5	102.6	102.0	98.4	102.0	109.1	109.2	118.6	127.2	-
Fabricated structural metal products	344	100.4	96.9	98.8	100.0	103.9	104.8	107.7	105.8	106.5	110.0	-
Screw machine products, bolts, etc.	345	98.5	96.1	96.1	97.9	102.3	104.4	107.2	109.7	110.2	151.3	-
Metal forgings and stampings	346	101.5	99.8	95.6	92.9	103.7	108.7	108.5	109.3	113.6	120.2	-
Metal services, n.e.c.	347	108.3	102.4	104.7	99.4	111.6	120.6	123.0	127.7	128.4	123.5	-
Ordnance and accessories, n.e.c.	348	97.7	89.8	82.1	81.5	88.6	84.6	83.6	87.6	87.5	100.5	-
Miscellaneous fabricated metal products	349	101.4	95.9	97.5	97.4	101.1	102.0	103.2	106.6	108.3	106.2	-
Engines and turbines	351	106.8	110.7	106.5	105.8	103.3	109.2	122.3	122.7	136.6	134.2	-
Farm and garden machinery	352	106.3	110.7	116.5	112.9	113.9	118.6	125.0	134.7	137.2	141.0	-
Construction and related machinery	353	106.5	108.3	107.0	99.1	102.0	108.2	117.7	122.1	123.3	131.8	-
Metalworking machinery	354	101.0	103.5	101.1	96.4	104.3	107.4	109.9	114.8	114.9	118.6	-
Special industry machinery	355	104.6	108.3	107.5	108.3	106.0	113.6	121.2	132.3	134.0	130.1	-
General industrial machinery	356	105.9	101.5	101.5	101.6	101.6	104.8	106.7	109.0	109.4	110.1	-
Refrigeration and service machinery	358	102.1	106.0	103.6	100.7	104.9	108.6	110.7	112.7	114.7	114.8	-
Industrial machinery, n.e.c.	359	106.5	107.1	107.3	109.0	117.0	118.5	127.4	138.8	141.4	129.7	-
Electric distribution equipment	361	105.4	105.0	106.3	106.5	119.6	122.2	131.8	143.0	143.9	143.9	-
Electrical industrial apparatus	362	104.6	107.4	107.7	107.1	117.1	132.9	134.9	150.8	154.3	163.9	-
Household appliances	363	103.0	104.7	105.8	106.5	115.0	123.4	131.4	127.3	127.4	138.1	-
Electric lighting and wiring equipment	364	101.9	100.2	99.9	97.5	105.7	107.8	113.4	113.7	116.9	121.4	-
Communications equipment	366	110.5	107.2	121.4	124.5	146.7	150.3	166.0	170.9	190.3	221.0	-
Miscellaneous electrical equipment & supplies	369	102.8	99.6	90.6	98.6	101.3	108.2	110.5	114.1	123.1	124.6	-
Motor vehicles and equipment	371	103.2	103.3	102.4	96.6	104.2	106.2	108.8	106.7	107.2	116.5	-
Aircraft and parts	372	100.6	98.2	98.9	108.2	112.4	115.2	109.6	107.8	113.0	114.0	-
Ship and boat building and repairing	373	99.4	97.6	103.7	96.3	102.7	106.2	103.8	98.0	99.2	104.3	-
Railroad equipment	374	113.5	135.3	141.1	146.9	147.9	151.0	152.5	150.0	148.3	183.2	-
Motorcycles, bicycles, and parts	375	92.6	94.6	93.8	99.8	108.4	130.9	125.1	120.3	125.5	120.5	-
Guided missiles, space vehicles, parts	376	104.1	110.6	116.5	110.5	110.5	122.1	118.9	121.0	129.4	126.6	-
Search and navigation equipment	381	104.8	105.8	112.7	118.9	122.1	129.1	132.1	149.5	142.2	148.9	-
Measuring and controlling devices	382	103.9	102.1	107.0	113.9	121.0	125.2	135.0	147.8	151.9	144.3	-
Medical instruments and supplies	384	105.2	107.9	116.9	118.7	123.5	127.3	126.7	131.5	139.8	146.3	-
Ophthalmic goods	385	112.6	123.3	121.2	125.1	144.5	157.8	160.6	167.2	188.2	202.6	-
Photographic equipment & supplies	386	105.6	113.0	107.8	110.2	116.4	126.9	132.7	129.5	128.7	121.6	-

See footnotes at end of table.

42. Continued--Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Jewelry, silverware, and plated ware	391	100.1	102.9	99.3	95.8	96.7	96.7	99.5	100.2	102.6	117.2	-
Musical instruments	393	101.8	96.1	97.1	96.9	96.0	95.6	88.7	86.9	78.8	83.9	-
Toys and sporting goods	394	104.8	106.0	108.1	109.7	104.9	114.2	109.7	113.6	119.9	139.6	-
Pens, pencils, office, and art supplies	395	108.3	112.9	118.2	116.8	111.3	111.6	129.9	135.2	144.1	127.7	-
Costume jewelry and notions	396	102.0	93.8	105.3	106.7	110.8	115.8	129.0	143.7	142.2	119.1	-
Miscellaneous manufactures	399	102.1	100.9	106.5	109.2	109.5	107.7	106.1	108.1	112.8	109.3	-
Transportation												
Trucking, except local [1]	4213	105.2	109.3	111.1	116.9	123.4	126.6	129.5	125.4	130.9	132.4	130.1
U.S. postal service [2]	431	99.9	99.7	104.0	103.7	104.5	107.1	106.6	106.5	104.7	108.3	109.5
Air transportation [1]	4512,13,22 (pts.)	99.5	95.8	92.9	92.5	96.9	100.2	105.7	108.6	111.6	111.1	108.5
Utilities												
Telephone communications	481	106.2	111.6	113.3	119.8	127.7	135.5	142.2	148.1	159.5	160.9	171.2
Radio and television broadcasting	483	103.1	106.2	104.9	106.1	108.3	106.7	110.1	109.6	105.8	101.1	100.8
Cable and other pay TV services	484	102.0	99.7	92.5	87.5	88.3	86.7	85.6	86.7	84.4	87.6	88.0
Electric utilities	491,3 (pt.)	104.9	107.7	110.1	113.4	115.2	120.6	126.8	135.0	150.5	146.5	157.2
Gas utilities	492,3 (pt.)	108.3	111.2	105.8	109.6	111.1	121.8	125.6	137.1	158.6	145.9	153.4
Trade												
Lumber and other building materials dealers	521	101.0	99.1	103.6	101.3	105.4	110.5	118.3	117.6	121.7	122.2	133.0
Paint, glass, and wallpaper stores	523	102.8	101.7	106.0	99.4	106.5	114.7	130.2	135.3	140.2	143.8	166.0
Hardware stores	525	108.6	115.2	110.5	102.5	107.2	105.8	112.7	108.5	112.1	111.2	125.3
Retail nurseries, lawn and garden supply stores	526	106.7	103.4	83.9	88.5	100.4	106.6	116.6	117.2	136.6	128.1	136.1
Department stores	531	99.2	97.0	94.2	98.2	100.9	105.7	108.6	110.9	118.4	123.5	129.4
Variety stores	533	101.9	124.4	151.2	154.2	167.7	184.7	190.1	203.2	229.2	247.6	262.5
Miscellaneous general merchandise stores	539	100.8	109.8	116.4	121.8	136.1	159.7	160.9	163.9	164.9	168.2	189.9
Grocery stores	541	98.9	95.4	94.6	93.7	93.3	92.8	92.5	91.2	89.4	89.2	90.2
Meat and fish (seafood) markets	542	99.0	97.6	96.8	88.4	95.8	93.7	91.1	89.1	81.1	84.7	89.9
Retail bakeries	546	89.8	83.3	89.7	94.7	94.0	86.5	87.2	86.8	81.7	75.4	65.0
New and used car dealers	551	103.4	102.5	106.1	104.1	106.5	107.6	108.7	107.1	108.2	107.8	108.0
Auto and home supply stores	553	103.2	101.6	102.7	99.0	100.0	98.7	102.6	105.7	104.6	104.2	107.0
Gasoline service stations	554	103.0	105.2	102.6	104.3	109.7	115.2	120.4	126.3	125.1	125.0	130.6
Men's and boys' wear stores	561	106.0	109.6	113.7	119.2	118.2	115.5	117.9	117.5	125.7	132.2	145.5
Women's clothing stores	562	97.8	99.5	101.5	103.0	112.2	118.4	119.3	128.5	142.3	145.8	154.8
Family clothing stores	565	102.0	104.9	104.5	106.4	111.7	114.5	120.4	133.8	138.8	142.1	145.6
Shoe stores	566	102.7	107.2	106.1	105.1	111.5	113.2	126.3	134.5	146.9	143.5	136.4
Miscellaneous apparel and accessory stores	569	96.3	95.2	88.6	78.8	89.1	92.9	100.4	122.1	127.1	118.1	131.0
Furniture and homefurnishings stores	571	98.6	100.9	101.8	101.5	108.4	107.6	108.8	112.0	118.6	119.4	121.6
Household appliance stores	572	98.5	103.5	102.8	105.2	113.9	117.0	121.2	138.7	141.8	155.5	184.5
Radio, television, computer, and music stores	573	118.6	114.6	119.6	128.3	137.8	152.7	177.0	196.7	204.6	215.1	258.9
Eating and drinking places	581	102.8	102.2	104.0	103.1	102.5	102.8	101.1	100.9	99.5	100.5	101.1
Drug and proprietary stores	591	101.9	102.5	103.6	104.7	103.6	105.4	105.7	106.9	109.6	115.4	117.7
Liquor stores	592	98.2	101.1	105.2	105.9	108.4	100.7	99.1	103.7	112.8	108.9	113.9
Used merchandise stores	593	105.3	104.9	100.3	98.6	110.4	112.1	115.4	117.3	129.8	138.0	158.4
Miscellaneous shopping goods stores	594	100.7	104.2	104.2	105.0	102.7	106.5	111.9	117.8	120.0	123.7	131.5
Nonstore retailers	596	105.6	110.8	108.8	109.3	122.1	127.5	143.3	146.1	165.5	177.2	193.5
Fuel dealers	598	95.6	92.0	84.4	85.3	84.4	92.7	100.7	114.2	115.8	113.4	112.0
Retail stores, n.e.c.	599	105.9	103.1	113.7	103.2	111.6	117.3	125.0	126.2	139.5	147.3	157.6
Finance and services												
Commercial banks	602	102.8	104.8	107.7	110.1	111.0	118.5	121.7	126.4	129.7	133.0	133.0
Hotels and motels	701	97.6	95.0	96.1	99.1	107.8	106.2	109.6	110.1	109.7	107.9	108.8
Laundry, cleaning, and garment services	721	97.2	99.7	101.8	99.2	98.3	98.9	104.0	105.5	108.7	108.0	113.5
Photographic studios, portrait	722	100.1	94.9	96.6	92.8	97.7	105.9	117.4	129.3	126.6	133.7	153.4
Beauty shops	723	95.1	99.6	96.8	94.8	99.6	95.7	99.8	103.5	106.3	107.5	108.4
Barber shops	724	108.8	111.6	100.2	94.1	112.1	120.8	117.7	114.6	127.6	149.0	153.0
Funeral services and crematories	726	102.5	97.9	90.9	89.5	103.2	98.2	103.8	99.7	97.1	101.3	107.0
Automotive repair shops	753	105.7	108.1	106.9	98.7	103.3	104.0	112.3	119.5	114.1	115.2	121.2
Motion picture theaters	783	107.1	114.3	115.8	116.0	110.8	109.8	106.5	101.4	100.5	99.8	101.3

[1] Refers to output per employee.

[2] Refers to ouput per full-time equivalent employee year on fiscal basis.

n.e.c. = not elsewhere classified

- Data not available.

43. Unemployment rates, approximating U.S. concepts, in nine countries, quarterly data seasonally adjusted

Country	Annual average		1997	1998				1999		
	1997	1998	IV	I	II	III	IV	I	II	III
United States	4.9	4.5	4.7	4.7	4.4	4.5	4.4	4.3	4.3	4.2
Canada	9.2	8.3	8.9	8.6	8.4	8.3	8.0	7.8	8.0	7.6
Australia	8.6	8.0	8.3	8.1	8.0	8.1	7.7	7.4	7.4	7.2
Japan	3.4	4.1	3.5	3.7	4.2	4.3	4.4	4.7	4.8	4.8
France	12.4	11.7	12.3	12.0	11.7	11.7	11.5	11.3	11.2	11.1
Germany	9.9	9.4	10.0	9.9	9.5	9.1	9.1	9.0	9.0	9.1
Italy[1]	12.3	12.3	12.3	12.2	12.3	12.4	12.4	12.3	12.1	–
Sweden	10.1	8.4	9.1	8.8	8.6	8.5	7.7	7.4	7.0	7.1
United Kingdom	7.0	6.3	6.6	6.4	6.3	6.3	6.3	6.3	6.1	5.9

[1] Quarterly rates are for the first month of the quarter.

– Data not available.

NOTE: Quarterly figures for France, Germany, and the United Kingdom are calculated by applying annual adjustment factors to current published data, and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. See "Notes on the data" for information on breaks in series. For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries, 1959–1998* (Bureau of Labor Statistics, Oct. 22, 1999).

44. Annual data: Employment status of the working-age population, approximating U.S. concepts, 10 countries

[Numbers in thousands]

Employment status and country	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Civilian labor force										
United States[1]	123,869	125,840	126,346	128,105	129,200	131,056	132,304	133,943	136,297	137,673
Canada	14,151	14,329	14,408	14,482	14,663	14,832	14,928	15,145	15,354	15,632
Australia	8,228	8,444	8,490	8,562	8,619	8,776	9,001	9,127	9,221	9,347
Japan	61,920	63,050	64,280	65,040	65,470	65,780	65,990	66,450	67,200	67,240
France	24,170	24,300	24,490	24,550	24,650	24,760	24,820	25,080	25,140	25,390
Germany[2]	28,840	29,410	39,120	39,040	39,130	39,210	39,050	39,180	39,450	39,430
Italy	22,530	22,670	22,940	22,910	22,760	22,640	22,700	22,820	22,850	23,000
Netherlands	6,430	6,640	6,750	6,950	7,090	7,190	7,270	7,370	7,530	7,720
Sweden	4,552	4,597	4,591	4,520	4,443	4,418	4,460	4,459	4,418	4,402
United Kingdom	28,580	28,730	28,610	28,410	28,310	28,280	28,480	28,620	28,760	28,870
Participation rate[3]										
United States[1]	66.5	66.5	66.2	66.4	66.3	66.6	66.6	66.8	67.1	67.1
Canada	67.5	67.3	66.7	65.9	65.5	65.3	64.8	64.9	64.8	65.1
Australia	64.0	64.6	64.1	63.9	63.6	63.9	64.6	64.6	64.3	64.4
Japan	62.2	62.6	63.2	63.4	63.3	63.1	62.9	63.0	63.2	62.8
France	56.1	56.0	56.0	55.8	55.6	55.5	55.2	55.4	55.2	55.6
Germany[2]	55.2	55.3	58.9	58.3	58.0	57.6	57.2	57.4	57.6	57.6
Italy	47.3	47.2	47.7	47.5	48.1	47.5	47.5	47.7	47.7	47.8
Netherlands	54.7	56.1	56.5	57.8	58.5	59.0	59.3	59.8	60.7	62.0
Sweden	67.3	67.4	67.0	65.7	64.5	63.7	64.1	64.0	63.4	63.1
United Kingdom	64.0	64.1	63.7	63.1	62.8	62.5	62.7	62.7	62.8	62.7
Employed										
United States[1]	117,342	118,793	117,718	118,492	120,259	123,060	124,900	126,708	129,558	131,463
Canada	13,086	13,165	12,916	12,842	13,015	13,292	13,506	13,676	13,941	14,326
Australia	7,720	7,859	7,676	7,637	7,680	7,921	8,235	8,344	8,429	8,597
Japan	60,500	61,710	62,920	63,620	63,810	63,860	63,890	64,200	64,900	64,450
France	21,850	22,100	22,140	21,990	21,740	21,710	21,890	21,950	22,010	22,410
Germany[2]	27,200	27,950	36,910	36,420	36,020	35,900	35,850	35,680	35,540	35,720
Italy	20,770	21,080	21,360	21,230	20,430	20,080	19,980	20,060	20,050	20,170
Netherlands	5,980	6,230	6,350	6,560	6,620	6,670	6,760	6,900	7,130	7,410
Sweden	4,480	4,513	4,447	4,265	4,028	3,992	4,056	4,019	3,973	4,034
United Kingdom	26,510	26,740	26,090	25,530	25,340	25,550	26,000	26,280	26,740	27,050
Employment-population ratio[4]										
United States[1]	63.0	62.8	61.7	61.5	61.7	62.5	62.9	63.2	63.8	64.1
Canada	62.4	61.9	59.8	58.4	58.2	58.5	58.6	58.6	58.9	59.7
Australia	60.1	60.1	57.9	57.0	56.6	57.7	59.1	59.1	58.8	59.2
Japan	60.8	61.3	61.8	62.0	61.7	61.3	60.9	60.9	61.0	60.2
France	50.7	50.9	50.6	49.9	49.0	48.7	48.7	48.5	48.3	49.1
Germany[2]	52.0	52.6	55.5	54.4	53.4	52.8	52.5	52.2	51.9	52.2
Italy	43.6	43.9	44.5	44.0	43.1	42.1	41.8	41.9	41.8	41.9
Netherlands	50.9	52.6	53.2	54.5	54.7	54.7	55.1	55.9	57.5	59.5
Sweden	66.2	66.1	64.9	62.0	58.5	57.6	58.3	57.6	57.0	57.8
United Kingdom	59.3	59.6	58.0	56.7	56.2	56.5	57.2	57.6	58.3	58.8
Unemployed										
United States	6,528	7,047	8,628	9,613	8,940	7,996	7,404	7,236	6,739	6,210
Canada	1,065	1,164	1,492	1,640	1,649	1,541	1,422	1,469	1,414	1,305
Australia	508	585	814	925	939	856	766	783	791	750
Japan	1,420	1,340	1,360	1,420	1,660	1,920	2,100	2,250	2,300	2,790
France	2,320	2,210	2,350	2,560	2,910	3,050	2,920	3,130	3,120	2,980
Germany[2]	1,640	1,460	2,210	2,620	3,110	3,320	3,200	3,500	3,910	3,710
Italy	1,760	1,590	1,580	1,680	2,330	2,560	2,720	2,760	2,800	2,840
Netherlands	450	410	400	390	470	520	510	470	400	310
Sweden	72	84	144	255	415	426	404	440	445	368
United Kingdom	2,070	1,990	2,520	2,880	2,970	2,730	2,480	2,340	2,020	1,820
Unemployment rate										
United States[1]	5.3	5.6	6.8	7.5	6.9	6.1	5.6	5.4	4.9	4.5
Canada	7.5	8.1	10.4	11.3	11.2	10.4	9.5	9.7	9.2	8.3
Australia	6.2	6.9	9.6	10.8	10.9	9.7	8.5	8.6	8.6	8.0
Japan	2.3	2.1	2.1	2.2	2.5	2.9	3.2	3.4	3.4	4.1
France	9.6	9.1	9.6	10.4	11.8	12.3	11.8	12.5	12.4	11.7
Germany[2]	5.7	5.0	5.6	6.7	7.9	8.5	8.2	8.9	9.9	9.4
Italy	7.8	7.0	6.9	7.3	10.2	11.3	12.0	12.1	12.3	12.3
Netherlands	7.0	6.2	5.9	5.6	6.6	7.2	7.0	6.4	5.3	4.0
Sweden	1.6	1.8	3.1	5.6	9.3	9.6	9.1	9.9	10.1	8.4
United Kingdom	7.2	6.9	8.8	10.1	10.5	9.7	8.7	8.2	7.0	6.3

[1] Data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

[2] Data from 1991 onward refer to unified Germany. See *Comparative Civilian Labor Force Statistics, Ten Countries, 1959–1998*, October 22, 1999, on the Internet at **http://stats.bls.gov/flsdata.htm**.

[3] Labor force as a percent of the working-age population.

[4] Employment as a percent of the working-age population.

NOTE: See "Notes on the data" for information on breaks in series for the United States, France, Germany, Italy, the Netherlands, and Sweden. Dash indicates data not available.

45. Annual indexes of manufacturing productivity and related measures, 12 countries

[1992 = 100]

Item and country	1960	1970	1980	1987	1988	1989	1990	1991	1993	1994	1995	1996	1997	1998
Output per hour														
United States	–	–	71.9	94.4	98.0	97.1	97.8	98.3	102.1	108.3	114.9	117.3	122.1	127.9
Canada	40.7	59.2	75.3	91.3	91.1	92.4	95.3	95.1	102.5	106.2	108.9	107.3	111.0	111.7
Japan	14.0	38.0	63.9	81.2	84.8	89.5	95.4	99.4	100.5	101.8	109.3	115.8	121.4	120.4
Belgium	18.0	32.9	65.4	88.9	92.0	96.9	96.8	99.1	102.5	108.4	113.2	114.7	121.8	122.6
Denmark	29.9	52.7	90.3	90.6	94.1	99.6	99.1	99.6	104.5	–	–	–	–	–
France	21.8	43.1	66.7	81.8	87.4	91.9	93.5	96.9	100.6	108.5	114.4	114.9	123.2	127.4
Germany	29.2	52.0	77.2	88.1	91.5	94.6	99.0	101.9	100.6	107.9	111.2	115.1	121.8	127.1
Italy	19.6	36.8	64.1	85.1	86.7	89.4	92.5	95.2	102.9	105.6	109.3	110.3	113.4	113.6
Netherlands	18.6	38.1	69.2	91.6	93.7	97.1	98.6	99.6	101.4	112.7	117.7	119.7	125.7	127.8
Norway	36.7	57.8	76.7	93.3	92.1	94.6	96.6	97.5	100.6	101.4	102.0	102.0	101.9	104.1
Sweden	27.6	52.8	74.0	90.1	90.8	93.8	95.0	95.0	106.7	116.1	122.4	125.4	133.6	136.5
United Kingdom	31.2	44.7	56.1	79.4	82.3	86.2	88.3	92.2	104.0	106.8	104.8	103.2	104.0	105.1
Output														
United States	–	–	77.3	97.9	104.5	104.0	102.5	98.7	103.5	112.2	119.6	121.6	128.8	135.0
Canada	34.2	60.5	85.4	103.2	109.3	110.8	106.6	98.8	105.1	113.2	118.8	120.2	128.0	133.0
Japan	10.7	38.8	59.9	78.4	84.6	90.2	96.3	101.4	96.0	95.4	100.6	106.7	111.1	103.6
Belgium	30.7	57.6	78.2	88.8	93.3	99.1	101.0	100.7	97.0	101.4	104.2	104.2	109.0	111.8
Denmark	40.8	68.0	91.3	99.3	100.8	104.3	102.7	101.7	99.0	109.3	114.7	117.8	120.3	126.5
France	31.0	64.1	88.7	87.2	92.2	97.2	99.1	99.8	95.7	100.3	104.8	104.5	110.2	114.6
Germany	41.5	70.9	85.3	88.0	90.9	94.0	99.1	102.8	91.8	93.5	93.7	92.5	95.8	100.7
Italy	21.4	44.7	78.4	88.2	94.5	98.1	99.6	99.2	96.4	102.2	107.2	106.7	110.4	112.5
Netherlands	31.7	59.5	77.4	89.5	92.8	96.9	100.1	100.6	98.2	104.2	107.8	108.4	114.1	116.6
Norway	56.5	89.1	103.6	110.7	105.3	101.3	100.2	98.3	102.7	106.7	109.0	110.1	113.3	116.4
Sweden	46.5	81.7	91.8	107.7	110.2	111.6	110.6	103.6	101.3	115.7	130.1	132.9	140.3	146.4
United Kingdom	67.7	90.3	87.2	94.4	101.4	105.4	105.3	100.0	101.4	106.1	107.8	108.2	109.6	110.0
Total hours														
United States	92.1	104.4	107.5	103.8	106.6	107.1	104.8	100.4	101.4	103.6	104.0	103.7	105.5	105.6
Canada	84.1	102.1	113.5	113.0	120.0	119.9	111.9	103.8	102.6	106.6	109.1	112.0	115.4	119.0
Japan	76.3	102.3	93.8	96.6	99.8	100.8	100.9	102.0	95.6	93.7	92.0	92.2	91.5	86.1
Belgium	170.7	174.7	119.7	100.0	101.5	102.3	104.3	101.5	94.7	93.6	92.0	90.8	89.5	91.2
Denmark	136.5	129.0	101.1	109.6	107.2	104.7	103.7	102.1	94.8	–	–	–	–	–
France	142.1	148.7	133.1	106.6	105.5	105.8	105.9	103.0	95.1	92.4	91.6	91.0	89.5	89.9
Germany	142.3	136.3	110.5	99.9	99.3	99.3	100.1	100.9	91.3	86.7	84.3	80.4	78.6	79.3
Italy	109.0	121.2	122.4	103.6	108.9	109.7	107.7	104.2	93.6	96.7	98.0	96.7	97.4	99.0
Netherlands	170.6	156.2	111.8	97.7	99.0	99.8	101.5	101.0	96.9	92.4	91.6	90.5	90.8	91.2
Norway	154.0	154.3	135.0	118.6	114.3	107.1	103.7	100.8	102.1	105.2	106.9	107.9	111.1	111.9
Sweden	168.3	154.7	124.0	119.5	121.4	119.0	116.4	109.0	94.9	99.6	106.3	106.0	105.0	107.3
United Kingdom	217.3	202.1	155.3	118.9	123.2	122.3	119.2	108.5	97.5	99.4	102.9	104.8	105.4	104.7
Compensation per hour														
United States	14.9	23.7	55.6	80.7	84.0	86.6	90.8	95.6	102.7	105.6	107.9	109.3	113.4	119.4
Canada	10.4	17.8	47.7	75.3	77.8	82.5	89.5	94.7	99.6	100.4	103.6	102.8	106.7	110.8
Japan	4.3	16.5	58.6	77.9	79.2	84.2	90.7	95.9	104.6	106.7	109.5	110.9	113.9	115.8
Belgium	5.4	13.7	52.5	79.7	81.1	85.9	90.1	97.3	104.8	106.1	109.2	112.0	115.2	116.0
Denmark	4.6	13.3	49.6	80.1	82.9	87.7	92.7	95.9	104.6	–	–	–	–	–
France	4.3	10.3	40.8	78.6	81.6	86.0	90.6	96.2	102.8	105.0	107.6	109.5	112.3	113.9
Germany	8.1	20.7	53.6	76.0	79.1	83.2	89.4	95.1	105.9	111.7	117.7	123.7	126.6	127.6
Italy	1.6	4.7	28.2	66.7	69.3	75.9	84.4	93.6	107.5	107.8	112.8	120.9	125.9	124.8
Netherlands	6.4	20.2	64.4	87.8	87.7	88.5	90.8	95.2	103.7	108.2	110.6	113.2	115.8	118.3
Norway	4.7	11.8	39.0	78.5	83.3	87.2	92.3	97.5	101.5	104.4	109.2	113.6	119.1	126.4
Sweden	4.1	10.8	37.4	67.3	71.7	79.4	87.6	95.4	98.0	101.1	106.2	113.4	118.3	121.5
United Kingdom	3.1	6.3	33.2	64.8	67.7	72.9	80.9	90.5	104.3	106.5	107.4	108.2	111.4	117.8
Unit labor costs: National currency basis														
United States	–	–	77.2	85.5	85.7	89.2	92.8	97.2	100.6	97.6	93.9	93.2	92.9	93.4
Canada	25.5	30.0	63.3	82.5	85.5	89.2	93.9	99.6	97.2	94.5	95.2	95.8	96.2	99.2
Japan	30.9	43.3	91.7	96.0	93.4	94.0	95.0	96.5	104.1	104.9	100.1	95.8	93.8	96.2
Belgium	30.1	41.7	80.3	89.7	88.1	88.7	93.0	98.1	102.3	97.9	96.4	97.6	94.6	94.7
Denmark	15.4	25.2	55.0	88.4	88.2	88.1	93.6	96.3	100.1	93.0	93.8	92.7	95.9	94.0
France	19.5	24.0	61.2	96.2	93.4	93.6	96.8	99.3	102.2	96.8	94.1	95.3	91.2	89.4
Germany	27.8	39.8	69.4	86.3	86.5	87.9	90.3	93.3	105.3	103.6	105.9	107.5	103.9	100.4
Italy	8.0	12.7	44.0	78.3	79.9	84.9	91.3	98.4	104.4	102.1	103.2	109.6	111.1	109.8
Netherlands	34.4	52.9	93.0	95.9	93.6	91.1	92.1	95.5	102.3	96.0	94.0	94.6	92.2	92.5
Norway	12.9	20.4	50.8	84.1	90.4	92.2	95.6	100.0	100.9	102.9	107.1	111.4	116.9	121.4
Sweden	14.9	20.5	50.6	74.7	79.0	84.7	92.3	100.4	91.8	87.0	86.8	90.4	88.5	89.0
United Kingdom	9.8	14.1	59.1	81.6	82.2	84.6	91.6	98.2	100.3	99.7	102.5	104.8	107.1	112.1
Unit labor costs: U.S. dollar basis														
United States	–	–	77.2	85.5	85.7	89.2	92.8	97.2	100.6	97.6	93.9	93.2	92.9	93.4
Canada	31.8	34.7	65.4	75.2	83.9	91.0	97.2	105.0	91.1	83.6	83.8	84.9	83.9	80.8
Japan	10.9	15.3	51.3	84.2	92.4	86.3	83.1	90.9	118.8	130.1	135.1	111.7	98.3	93.1
Belgium	19.4	27.0	88.3	77.2	77.0	72.3	89.5	92.3	95.1	94.2	105.2	101.4	84.9	83.8
Denmark	13.5	20.3	58.9	77.9	79.0	72.6	91.3	90.8	93.2	88.3	101.1	96.5	87.6	84.7
France	21.1	23.0	76.7	84.7	82.9	77.7	94.1	93.1	95.5	92.4	99.9	98.6	82.6	80.2
Germany	10.4	17.1	59.6	74.9	76.9	73.0	87.3	87.8	99.4	99.8	115.5	111.6	93.5	89.1
Italy	16.0	24.9	63.3	74.4	75.6	76.2	93.8	97.6	81.8	78.1	78.0	87.5	80.3	77.9
Netherlands	16.0	25.7	82.3	83.2	83.2	75.5	88.9	89.8	96.8	92.8	103.0	98.6	83.0	82.0
Norway	11.3	17.8	63.9	77.5	86.1	82.9	95.0	95.7	88.3	90.7	105.0	107.1	102.5	99.9
Sweden	16.8	23.0	69.6	68.5	75.0	76.4	90.8	96.6	68.6	65.7	70.8	78.5	67.5	65.2
United Kingdom	15.6	19.2	77.8	75.7	82.9	78.5	92.5	98.2	85.3	86.5	91.6	95.6	99.3	105.2

– Data not available.

46. Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1987	1988	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]
PRIVATE SECTOR[5]												
Total cases	8.3	8.6	8.6	8.8	8.4	8.9	8.5	8.4	8.1	7.4	7.1	6.7
Lost workday cases	3.8	4.0	4.0	4.1	3.9	3.9	3.8	3.8	3.6	3.4	3.3	3.1
Lost workdays	69.9	76.1	78.7	84.0	86.5	93.8	–	–	–	–	–	–
Agriculture, forestry, and fishing[5]												
Total cases	11.2	10.9	10.9	11.6	10.8	11.6	11.2	10.0	9.7	8.7	8.4	7.9
Lost workday cases	5.7	5.6	5.7	5.9	5.4	5.4	5.0	4.7	4.3	3.9	4.1	3.9
Lost workdays	94.1	101.8	100.9	112.2	108.3	126.9	–	–	–	–	–	–
Mining												
Total cases	8.5	8.8	8.5	8.3	7.4	7.3	6.8	6.3	6.2	5.4	5.9	4.9
Lost workday cases	4.9	5.1	4.8	5.0	4.5	4.1	3.9	3.9	3.9	3.2	3.7	2.9
Lost workdays	144.0	152.1	137.2	119.5	129.6	204.7	–	–	–	–	–	–
Construction												
Total cases	14.7	14.6	14.3	14.2	13.0	13.1	12.2	11.8	10.6	9.9	9.5	8.8
Lost workday cases	6.8	6.8	6.8	6.7	6.1	5.8	5.5	5.5	4.9	4.5	4.4	4.0
Lost workdays	135.8	142.2	143.3	147.9	148.1	161.9	–	–	–	–	–	–
General building contractors:												
Total cases	14.2	14.0	13.9	13.4	12.0	12.2	11.5	10.9	9.8	9.0	8.5	8.4
Lost workday cases	6.5	6.4	6.5	6.4	5.5	5.4	5.1	5.1	4.4	4.0	3.7	3.9
Lost workdays	134.0	132.2	137.3	137.6	132.0	142.7	–	–	–	–	–	–
Heavy construction, except building:												
Total cases	14.5	15.1	13.8	13.8	12.8	12.1	11.1	10.2	9.9	9.0	8.7	8.2
Lost workday cases	6.4	7.0	6.5	6.3	6.0	5.4	5.1	5.0	4.8	4.3	4.3	4.1
Lost workdays	139.1	162.3	147.1	144.6	160.1	165.8	–	–	–	–	–	–
Special trades contractors:												
Total cases	15.0	14.7	14.6	14.7	13.5	13.8	12.8	12.5	11.1	10.4	10.0	9.1
Lost workday cases	7.1	7.0	6.9	6.9	6.3	6.1	5.8	5.8	5.0	4.8	4.7	4.1
Lost workdays	135.7	141.1	144.9	153.1	151.3	168.3	–	–	–	–	–	–
Manufacturing												
Total cases	11.9	13.1	13.1	13.2	12.7	12.5	12.1	12.2	11.6	10.6	10.3	9.7
Lost workday cases	5.3	5.7	5.8	5.8	5.6	5.4	5.3	5.5	5.3	4.9	4.8	4.7
Lost workdays	95.5	107.4	113.0	120.7	121.5	124.6	–	–	–	–	–	–
Durable goods:												
Total cases	12.5	14.2	14.1	14.2	13.6	13.4	13.1	13.5	12.8	11.6	11.3	10.7
Lost workday cases	5.4	5.9	6.0	6.0	5.7	5.5	5.4	5.7	5.6	5.1	5.1	5.0
Lost workdays	96.8	111.1	116.5	123.3	122.9	126.7	–	–	–	–	–	–
Lumber and wood products:												
Total cases	18.9	19.5	18.4	18.1	16.8	16.3	15.9	15.7	14.9	14.2	13.5	13.2
Lost workday cases	9.6	10.0	9.4	8.8	8.3	7.6	7.6	7.7	7.0	6.8	6.5	6.8
Lost workdays	176.5	189.1	177.5	172.5	172.0	165.8	–	–	–	–	–	–
Furniture and fixtures:												
Total cases	15.4	16.6	16.1	16.9	15.9	14.8	14.6	15.0	13.9	12.2	12.0	11.4
Lost workday cases	6.7	7.3	7.2	7.8	7.2	6.6	6.5	7.0	6.4	5.4	5.8	5.7
Lost workdays	103.6	115.7	–	–	–	128.4	–	–	–	–	–	–
Stone, clay, and glass products:												
Total cases	14.9	16.0	15.5	15.4	14.8	13.6	13.8	13.2	12.3	12.4	11.8	11.8
Lost workday cases	7.1	7.5	7.4	7.3	6.8	6.1	6.3	6.5	5.7	6.0	5.7	6.0
Lost workdays	135.8	141.0	149.8	160.5	156.0	152.2	–	–	–	–	–	–
Primary metal industries:												
Total cases	17.0	19.4	18.7	19.0	17.7	17.5	17.0	16.8	16.5	15.0	15.0	14.0
Lost workday cases	7.4	8.2	8.1	8.1	7.4	7.1	7.3	7.2	7.2	6.8	7.2	7.0
Lost workdays	145.8	161.3	168.3	180.2	169.1	175.5	–	–	–	–	–	–
Fabricated metal products:												
Total cases	17.0	18.8	18.5	18.7	17.4	16.8	16.2	16.4	15.8	14.4	14.2	13.9
Lost workday cases	7.2	8.0	7.9	7.9	7.1	6.6	6.7	6.7	6.9	6.2	6.4	6.5
Lost workdays	121.9	138.8	147.6	155.7	146.6	144.0	–	–	–	–	–	–
Industrial machinery and equipment:												
Total cases	11.3	12.1	12.1	12.0	11.2	11.1	11.1	11.6	11.2	9.9	10.0	9.5
Lost workday cases	4.4	4.7	4.8	4.7	4.4	4.2	4.2	4.4	4.4	4.0	4.1	4.0
Lost workdays	72.7	82.8	86.8	88.9	86.6	87.7	–	–	–	–	–	–
Electronic and other electrical equipment:												
Total cases	7.2	8.0	9.1	9.1	8.6	8.4	8.3	8.3	7.6	6.8	6.6	5.9
Lost workday cases	3.1	3.3	3.9	3.8	3.7	3.6	3.5	3.6	3.3	3.1	3.1	2.8
Lost workdays	55.9	64.6	77.5	79.4	83.0	81.2	–	–	–	–	–	–
Transportation equipment:												
Total cases	13.5	17.7	17.7	17.8	18.3	18.7	18.5	19.6	18.6	16.3	15.4	14.6
Lost workday cases	5.7	6.6	6.8	6.9	7.0	7.1	7.1	7.8	7.9	7.0	6.6	6.6
Lost workdays	105.7	134.2	138.6	153.7	166.1	186.6	–	–	–	–	–	–
Instruments and related products:												
Total cases	5.8	6.1	5.6	5.9	6.0	5.9	5.6	5.9	5.3	5.1	4.8	4.0
Lost workday cases	2.4	2.6	2.5	2.7	2.7	2.7	2.5	2.7	2.4	2.3	2.3	1.9
Lost workdays	43.9	51.5	55.4	57.8	64.4	65.3	–	–	–	–	–	–
Miscellaneous manufacturing industries:												
Total cases	10.7	11.3	11.1	11.3	11.3	10.7	10.0	9.9	9.1	9.5	8.9	8.1
Lost workday cases	4.6	5.1	5.1	5.1	5.1	5.0	4.6	4.5	4.3	4.4	4.2	3.9
Lost workdays	81.5	91.0	97.6	113.1	104.0	108.2	–	–	–	–	–	–

See footnotes at end of table.

46. Continued—Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1987	1988	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]
Nondurable goods:												
Total cases	11.1	11.4	11.6	11.7	11.5	11.3	10.7	10.5	9.9	9.2	8.8	8.2
Lost workday cases	5.1	5.4	5.5	5.6	5.5	5.3	5.0	5.1	4.9	4.6	4.4	4.3
Lost workdays	93.5	101.7	107.8	116.9	119.7	121.8	–	–	–	–	–	–
Food and kindred products:												
Total cases	17.7	18.5	18.5	20.0	19.5	18.8	17.6	17.1	16.3	15.0	14.5	13.6
Lost workday cases	8.6	9.2	9.3	9.9	9.9	9.5	8.9	9.2	8.7	8.0	8.0	7.5
Lost workdays	153.7	169.7	174.7	202.6	207.2	211.9	–	–	–	–	–	–
Tobacco products:												
Total cases	8.6	9.3	8.7	7.7	6.4	6.0	5.8	5.3	5.6	6.7	5.9	6.4
Lost workday cases	2.5	2.9	3.4	3.2	2.8	2.4	2.3	2.4	2.6	2.8	2.7	3.1
Lost workdays	46.4	53.0	64.2	62.3	52.0	42.9	–	–	–	–	–	–
Textile mill products:												
Total cases	9.0	9.6	10.3	9.6	10.1	9.9	9.7	8.7	8.2	7.8	6.7	6.7
Lost workday cases	3.6	4.0	4.2	4.0	4.4	4.2	4.1	4.0	4.1	3.6	3.1	3.4
Lost workdays	65.9	78.8	81.4	85.1	88.3	87.1	–	–	–	–	–	–
Apparel and other textile products:												
Total cases	7.4	8.1	8.6	8.8	9.2	9.5	9.0	8.9	8.2	7.4	7.0	6.2
Lost workday cases	3.1	3.5	3.8	3.9	4.2	4.0	3.8	3.9	3.6	3.3	3.1	2.6
Lost workdays	59.5	68.2	80.5	92.1	99.9	104.6	–	–	–	–	–	–
Paper and allied products:												
Total cases	12.8	13.1	12.7	12.1	11.2	11.0	9.9	9.6	8.5	7.9	7.3	7.1
Lost workday cases	5.8	5.9	5.8	5.5	5.0	5.0	4.6	4.5	4.2	3.8	3.7	3.7
Lost workdays	122.3	124.3	132.9	124.8	122.7	125.9	–	–	–	–	–	–
Printing and publishing:												
Total cases	6.7	6.6	6.9	6.9	6.7	7.3	6.9	6.7	6.4	6.0	5.7	5.4
Lost workday cases	3.1	3.2	3.3	3.3	3.2	3.2	3.1	3.0	3.0	2.8	2.7	2.8
Lost workdays	55.1	59.8	63.8	69.8	74.5	74.8	–	–	–	–	–	–
Chemicals and allied products:												
Total cases	7.0	7.0	7.0	6.5	6.4	6.0	5.9	5.7	5.5	4.8	4.8	4.2
Lost workday cases	3.1	3.3	3.2	3.1	3.1	2.8	2.7	2.8	2.7	2.4	2.3	2.1
Lost workdays	58.8	59.0	63.4	61.6	62.4	64.2	–	–	–	–	–	–
Petroleum and coal products:												
Total cases	7.3	7.0	6.6	6.6	6.2	5.9	5.2	4.7	4.8	4.6	4.3	3.9
Lost workday cases	3.1	3.2	3.3	3.1	2.9	2.8	2.5	2.3	2.4	2.5	2.2	1.8
Lost workdays	65.9	68.4	68.1	77.3	68.2	71.2	–	–	–	–	–	–
Rubber and miscellaneous plastics products:												
Total cases	15.9	16.3	16.2	16.2	15.1	14.5	13.9	14.0	12.9	12.3	11.9	11.2
Lost workday cases	7.6	8.1	8.0	7.8	7.2	6.8	6.5	6.7	6.5	6.3	5.8	5.8
Lost workdays	130.8	142.9	147.2	151.3	150.9	153.3	–	–	–	–	–	–
Leather and leather products:												
Total cases	12.4	11.4	13.6	12.1	12.5	12.1	12.1	12.0	11.4	10.7	10.6	9.8
Lost workday cases	5.8	5.6	6.5	5.9	5.9	5.4	5.5	5.3	4.8	4.5	4.3	4.5
Lost workdays	114.5	128.2	130.4	152.3	140.8	128.5	–	–	–	–	–	–
Transportation and public utilities												
Total cases	8.4	8.9	9.2	9.6	9.3	9.1	9.5	9.3	9.1	8.7	8.2	7.3
Lost workday cases	4.9	5.1	5.3	5.5	5.4	5.1	5.4	5.5	5.2	5.1	4.8	4.3
Lost workdays	108.1	118.6	121.5	134.1	140.0	144.0	–	–	–	–	–	–
Wholesale and retail trade												
Total cases	7.7	7.8	8.0	7.9	7.6	8.4	8.1	7.9	7.5	6.8	6.7	6.5
Lost workday cases	3.4	3.5	3.6	3.5	3.4	3.5	3.4	3.4	3.2	2.9	3.0	2.8
Lost workdays	56.1	60.9	63.5	65.6	72.0	80.1	–	–	–	–	–	–
Wholesale trade:												
Total cases	7.4	7.6	7.7	7.4	7.2	7.6	7.8	7.7	7.5	6.6	6.5	6.5
Lost workday cases	3.7	3.8	4.0	3.7	3.7	3.6	3.7	3.8	3.6	3.4	3.2	3.3
Lost workdays	64.0	69.2	71.9	71.5	79.2	82.4	–	–	–	–	–	–
Retail trade:												
Total cases	7.8	7.9	8.1	8.1	7.7	8.7	8.2	7.9	7.5	6.9	6.8	6.5
Lost workday cases	3.3	3.4	3.4	3.4	3.3	3.4	3.3	3.3	3.0	2.8	2.9	2.7
Lost workdays	52.9	57.6	60.0	63.2	69.1	79.2	–	–	–	–	–	–
Finance, insurance, and real estate												
Total cases	2.0	2.0	2.0	2.4	2.4	2.9	2.9	2.7	2.6	2.4	2.2	1.9
Lost workday cases	.9	.9	.9	1.1	1.1	1.2	1.2	1.1	1.0	.9	0.9	0.7
Lost workdays	14.3	17.2	17.6	27.3	24.1	32.9	–	–	–	–	–	–
Services												
Total cases	5.5	5.4	5.5	6.0	6.2	7.1	6.7	6.5	6.4	6.0	5.6	5.2
Lost workday cases	2.7	2.6	2.7	2.8	2.8	3.0	2.8	2.8	2.8	2.6	2.5	2.4
Lost workdays	45.8	47.7	51.2	56.4	60.0	68.6	–	–	–	–	–	–

[1] Data for 1989 and subsequent years are based on the *Standard Industrial Classification Manual*, 1987 Edition. For this reason, they are not strictly comparable with data for the years 1985–88, which were based on the *Standard Industrial Classification Manual*, 1972 Edition, 1977 Supplement.

[2] Beginning with the 1992 survey, the annual survey measures only nonfatal injuries and illnesses, while past surveys covered both fatal and nonfatal incidents. To better address fatalities, a basic element of workplace safety, BLS implemented the Census of Fatal Occupational Injuries.

[3] The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as (N/EH) X 200,000, where:

N = number of injuries and illnesses or lost workdays;

EH = total hours worked by all employees during the calendar year; and

200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

[4] Beginning with the 1993 survey, lost workday estimates will not be generated. As of 1992, BLS began generating percent distributions and the median number of days away from work by industry and for groups of workers sustaining similar work disabilities.

[5] Excludes farms with fewer than 11 employees since 1976.

– Data not available.

47. Fatal occupational injuries by event or exposure, 1993–98

Event or exposure[1]	Fatalities			
	1993–97	1997[2]	1998	
	Average	Number	Number	Percent
Total	6,335	6,238	6,026	100
Transportation incidents	2,611	2,605	2,630	44
Highway incident	1,334	1,393	1,431	24
Collision between vehicles, mobile equipment	652	640	701	12
Moving in same direction	109	103	118	2
Moving in opposite directions, oncoming	234	230	271	4
Moving in intersection	132	142	142	2
Vehicle struck stationary object or equipment	249	282	306	5
Noncollision incident	360	387	373	6
Jackknifed or overturned—no collision	267	298	300	5
Nonhighway (farm, industrial premises) incident	388	377	384	6
Overturned	214	216	216	4
Aircraft	315	261	223	4
Worker struck by a vehicle	373	367	413	7
Water vehicle incident	106	109	112	2
Railway	83	93	60	1
Assaults and violent acts	1,241	1,111	960	16
Homicides	995	860	709	12
Shooting	810	708	569	9
Stabbing	75	73	61	1
Other, including bombing	110	79	79	1
Self-inflicted injuries	215	216	223	4
Contact with objects and equipment	1,005	1,035	941	16
Struck by object	573	579	517	9
Struck by falling object	369	384	317	5
Struck by flying object	65	54	58	1
Caught in or compressed by equipment or objects	290	320	266	4
Caught in running equipment or machinery	153	189	129	2
Caught in or crushed in collapsing materials	124	118	140	2
Falls	668	716	702	12
Fall to lower level	591	653	623	10
Fall from ladder	94	116	111	2
Fall from roof	139	154	156	3
Fall from scaffold, staging	83	87	97	2
Fall on same level	52	44	51	1
Exposure to harmful substances or environments	586	554	572	9
Contact with electric current	320	298	334	6
Contact with overhead power lines	128	138	153	3
Contact with temperature extremes	43	40	46	1
Exposure to caustic, noxious, or allergenic substances	120	123	104	2
Inhalation of substances	70	59	48	1
Oxygen deficiency	101	90	87	1
Drowning, submersion	80	72	75	1
Fires and explosions	199	196	205	3
Other events or exposures[3]	26	21	16	-

[1] Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

[2] The BLS news release issued August 12, 1998, reported a total of 6,218 fatal work injuries for calendar year 1997. Since then, an additional 20 job-related fatalities were identified, bringing the total job-related fatality count for 1997 to 6,238.

[3] Includes the category "Bodily reaction and exertion."

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding. Dash indicates less than 0.5 percent.

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Employee Benefits Survey	http://stats.bls.gov/ebshome.htm
Occupational Compensation Survey	http://stats.bls.gov/ocshome.htm
Safety and health	http://stats.bls.gov/oshhome.htm

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International data:

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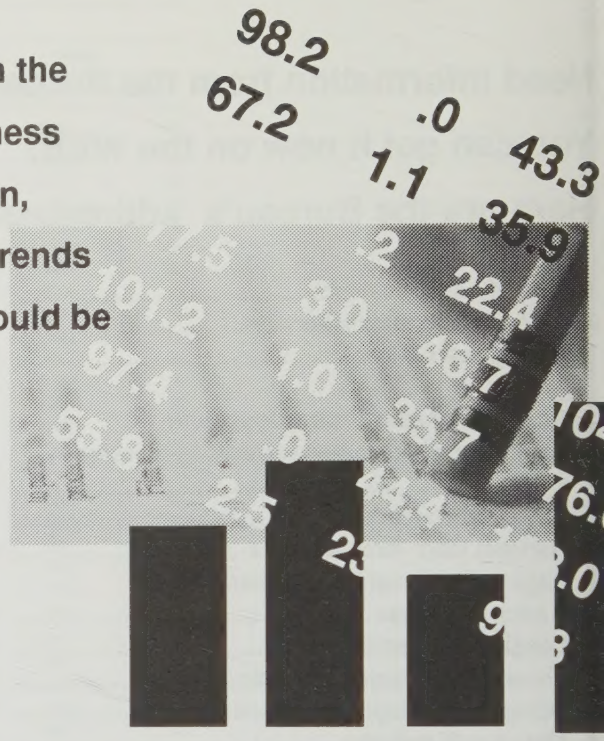

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Klein Award winners

The Lawrence R. Klein Award trustees selected the authors of four articles published in the *Monthly Labor Review* in 1999 as winners of the 2000 Klein Award. The winners were:

- Edwin R. Dean for "The accuracy of the BLS productivity measures," in the February 1999 issue;
- Lucy P. Eldridge for "How price indexes affect BLS productivity measures" in the February 1999 issue;
- William Gullickson and Michael J. Harper for "Possible measurement bias in aggregate productivity growth," in the February 1999 issue; and
- Philip N. Cohen and Suzanne M. Bianchi for "Marriage, children, and women's employment: what do we know?" in the December 1999 issue.

The majority of the February 1999 *Review* was devoted to issues in productivity measurement. Edwin Dean sets the stage, discussing the Bureau of Labor Statistics efforts to enhance the reliability of its productivity measures, facilitate analysis of economic performance, and provide useful information to the public. He concludes that despite the sustained efforts of improvement, "[t]he BLS clearly recognizes...there is room for further improvement."

Lucy P. Eldridge examines the relationship between consumer price indexes and productivity statistics, gauging the relative importance of each of the various indexes used. She finds that price indexes play a significant role in measuring real output and productivity (they are used in calculating about 56 percent of the measured output of the business sector); therefore, potential bias in the price indexes, as well as a lack of price indexes, will affect the accuracy of measured growth in output and productivity.

William Gullickson and Michael J. Harper lay the groundwork for understanding the potential biases that specific "hard-to-measure" industries may impart to aggregate productivity measures. They ask: "What if productivity growth in certain industries was actually zero rather than a negative number?" They reason that negative productivity growth over a long period is not likely, so answering this question draws a conservative picture of the potential impact of some forms of measurement bias. Even this conservative experiment indicates that negative productivity growth in five specific industries is significant enough to lower the business sector productivity trend noticeably.

Philip N. Cohen and Suzanne M. Bianchi examine the implications of marriage and family to labor market decisions. They conclude that marriage in itself has relatively little effect on women's labor supply, and that children exert less downward pressure on supply than was the case in the late 1970s. The effect of having pre-school-age children on annual hours is substantial, however.

Origin of the Award. The Klein Award was established by Lawrence R. Klein, Editor-in-Chief of the *Monthly Labor Review* from 1946 until his retirement in 1968. Instead of accepting a retirement gift, Klein donated it and matched the amount collected to initiate the award. Until his death earlier this year, he contributed regularly to the fund, as have others. The purpose of the award is to encourage *Review* articles that exhibit originality of ideas or method of analysis, adhere to principles of scientific inquiry, and are well written. The two annual awards—one to a Bureau of Labor Statistics author and one to an author outside the Bureau—carry cash prizes.

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Schedule of release dates for BLS statistical series

Series	Release date	Period covered	Release date	Period covered	Release date	Period covered	MLR table number
Employment situation	June 2	May	July 7	June	August 4	July	1; 4–20
Productivity and costs	June 6	1st quarter			August 8	2nd quarter	2; 39–42
U.S. Import and Export Price Indexes	June 8	May	July 13	June	August 10	July	34–38
Producer Price Indexes	June 9	May	July 14	June	August 11	July	2; 31–33
Consumer Price indexes	June 14	May	July 18	June	August 16	July	2; 28–30
Real earnings	June 14	May	July 18	June	August 16	July	14, 16
Employment Cost Indexes			July 27	2nd quarter			1–3; 21–24